

Pushing Boundaries

By Lauren Meade

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This year marks the 50th anniversary of one of the most transformative discoveries in modern science: the laser.

Though the laser is pervasive today in grocery stores, dental offices and commercial airlines, the technology was derided early on as a "solution looking for a problem."

Even Nobel laureate Charles Townes, PhD, whose research led to the creation of the laser, admits he never foresaw such widespread applications. Rather, he envisioned the laser's practical use in telecommunications and high-resolution spectroscopy. "I didn't even imagine lasers could be used for medicine," says Dr. Townes during a press briefing at the 30th Annual Scientific Conference of the American Society for Laser Medicine and Surgery (ASLMS) in April.

ASLMS is the premiere show for medical researchers to unveil the latest laser innovations and techniques. Fittingly, ASLMS honored 94-year-old Townes for his lifetime achievement in laser research. Reflecting on how far lasers have come, Dr. Townes marveled at the latest applications for laser-assisted drug delivery, optical imaging and surgery. "I'm delighted how useful the laser is," says Dr. Townes.

Future Directions

Technologies are being continually improved to minimize complications and reduce treatment times, says Mitchel P. Goldman, MD, medical director of Goldman, Butterwick, Keel Cosmetic Laser Dermatology in San Diego. Dr. Goldman chatted on the exhibit floor about the Light Sheer Duet (Lumenis), designed for faster hair removal. Whereas laser hair removal used to take an hour, the Light Sheer Duet can cover the entire back in 15 minutes, he says, with less pain and burning because the device combines a larger spot size with lower energy output.

"The industry is trending toward less expensive technology that's more reliable with fewer breakdowns," Dr. Goldman says.