In dermatology, we are accustomed to seeing advancements occur on an incremental basis as drugs and devices often find their ways to new indications and tweaked formulations. Radical innovation, albeit rare, focuses on long-term impact; such an example is the concept of selective photothermolysis, introduced by R. Rox Anderson, MD and John Parrish, MD in 1983. It allows for the ability to target tissue by matching the specific wavelength of light and heating that tissue without affecting or damaging surrounding tissue. This concept was first deployed for the process of laser hair removal and subsequently propagated into the arena of tattoo removal, vascular port wine stains, and photoaging. Later, Dr. Anderson and Dieter Manstein, MD introduced fractional laser technology, advancing the concept of skin renewal through microthermal columns of thermal damage.

Some innovations, while significant in their ability to effect change and revolutionize the ability of physicians to treat a variety of conditions, may not be suitable for all patients. What leaves much to be desired, then, is a laser that can safely treat the full spectrum of all skin types. A laser that is exact, personalized, and can yield unparalleled, reliable results with minimal downtime and invasiveness.

FOCAL POINT TECHNOLOGY

A new laser innovation soon to hit the market, powered by focal point technology, creates a fundamental shift in how laser energy is applied allowing for even more precise, selective tissue targeting that opens up the world of laser treatments to a broad range of individuals who have previously been left behind with substandard aesthetic treatment options. This new innovation fills a void in the aesthetic world that has long been missing for skin types IV, V and VI. In this manner, focal point technology, developed by pioneers in laser therapy, Drs. Rox Anderson, Dieter Manstein, and Henry Chan, is a disruptive innovation that seeks to make treatments accessible and available to a wider audience who had previously thought that they either had to endure more serious side effects to achieve the cosmetic results they desire, or conversely, not be treated at all.

At the heart of this technology is a highly focused laser that targets the dermis while sparing the epidermis from injury. Focal point technology eliminates the need for surface-level contrast, making it ideal for ethnic skin tones. One device being commercialized by AVAVA Aesthetics will focus on skin rejuvenation and acne scarring, with a follow-up device designed with a novel mechanism of action for the destruction of melanin for pigmentary disorders. This innovation comes at an important junction where the world is becoming more diverse and intertwined, but simultaneously, with individuals who are looking for more personalized approaches and options. At the core, focal point technology lasers are much more precise and less damaging than the previous generation of lasers and will introduce a new era of disruptive innovation. One that will expand aesthetic and clinical options for patients of all skin types around the world.

JANE YOO, MD, MPP
Board certified dermatologist and Mohs surgeon in private practice in New York, NY
Clinical and research interests revolve around the prevention, detection, treatment and management of skin cancer, aesthetic devices and artificial intelligence in dermatology.
Disclosure: Dr. Yoo is a consultant for AVAVA.

COMING IN 2023

In 2023, Dr. Yoo will contribute a Global Aesthetics column focused on international trends, highlighting new and innovative devices and technology. She will also talk to leaders in the field from around the globe.