

Take care of **Your** skin



DISCOVERY **PICO**

The picosecond laser specially design to take care of your skin



Quanta System
LASER IN OUR DNA

Laser Expert Discusses the Benefits of Next-Generation Picosecond Technology

By John Jesitus, Contributing Editor

Mark B. Taylor, MD, a dermatologist based in Salt Lake City, Utah, started using the Discovery Pico device from Quanta System (Milan, Italy), because he liked its combination of picosecond, Q-switched and thermal pulses. Now, after two years of using this device, he is still confident that he made the right choice. "It has been a very reliable laser and the company has been in business a long time," he stated.

With multiple pulse widths and wavelengths, and a new fractional handpiece, the Discovery Pico can keep aesthetic practices busy.

Dr. Taylor's most common indication for the device is tattoo removal. "We see all types of tattoos – from small to huge tattoos covering a large part of the trunk or extremity," he shared. For patient comfort, he uses topical or local anesthesia, depending on tattoo size and placement location on the body.

Assessing tattoo colors helps Dr. Taylor pick appropriate wavelengths and ink density determines energy levels. For recent, dark black tattoos, he typically chooses 1064 nm with a picosecond setting at 2 – 3 J/cm² and raises energy levels at subsequent treatments if needed.

"For red ink, we will use the 532 nm wavelength because that is more color-specific for red inks. The light is absorbed by the tattoo pigment particles and broken into very small pieces that can then be processed by the immune system," he explained.

Yellow has traditionally been a very difficult tattoo ink to remove. However, Dr. Taylor said that with picosecond pulses, the Discovery Pico's 532 nm wavelength provides better response than nanosecond lasers.

For most tattoos, the device's 1.8 GW peak power supports larger spot sizes and faster treatments. "It also distributes more random photons into the skin that then bounce around and help break up pigment," Dr. Taylor elaborated. "Using a new fractionated 1064 nm handpiece (with picosecond pulses) to 'perforate' the skin first may enable one to decrease total treatments by up to one-third, he added. Lightly inked homemade tattoos may require as few as two to four treatments; deeper professional tattoos may require many treatments.

Some tattoos, such as black ones, may respond better to nanosecond pulses, followed by picosecond pulses at subsequent sessions, said Dr. Taylor. "It is nice to have both the nanosecond and picosecond pulses available for different tattoos."

The Discovery Pico's fractionated handpiece also provides effective tissue regeneration and treatment of fine lines, wrinkles and acne scars with better tolerability and high safety for patients, he said. "Typically, we recommend at least one session weekly for a month," Dr. Taylor noted. For inflammatory acne, Dr. Taylor uses the 1064 nm laser with longer pulses.

To treat melasma, he typically uses a 7.5 mm spot and 0.9 J/cm² with the 1064 nm wavelength and picosecond pulses. These treatments are especially beneficial for patients with sensitive skin who are more likely to develop post-inflammatory hyperpigmentation (PIH) after laser treatment. Additionally, the laser's thermal pulse, with spot sizes up to 9 mm, allows Dr. Taylor to provide skin tightening in focal areas on the face and neck.

"It is quite a versatile laser. We keep it very busy in our office."



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Permanent
makeup tattoo
before and six
months after
treatment with
Discovery Pico
Photos courtesy
of Mark B.
Taylor, MD



Pigment before
and after
PicoFacial
photo facial
treatment with
Pico Discovery
Photos courtesy
of Mark B.
Taylor, MD

