Ellex 2RT RETINA REGENERATION THERAPY

Frequently Asked Questions

What is Ellex 2RT?

Ellex 2RT™ (Retina Regeneration Therapy)* is the culmination of more than 30 years of experience treating retinal diseases with lasers. Ellex 2RT™ is a laser treatment that uses extremely short pulses of laser energy that 'do no harm' to the inner retina and stimulate the retinal pigment epithelium (RPE) to preserve vision.

What can Ellex 2RT potentially treat?

Ellex 2RT™ is a candidate therapy for retinal diseases that are caused by a compromised Bruch's membrane resulting in reduced energy supply to, and waste removal from, the photoreceptors. The diseases that can potentially be treated include early AMD, diabetic maculopathy and other retinal diseases.

Why is Ellex 2RT potentially a better therapy?

With Ellex 2RT™, there is the potential to treat retinal diseases earlier, before irreversible physical changes occur and before patients experience significant vision loss.

How does Ellex 2RT work?

The laser energy is absorbed and stimulates the RPE to trigger a renewal process, which reduces disease progression and preserves or improves functional vision. There is no visual effect on the retina and no damage to photoreceptors when the laser is fired.

What is the science behind Ellex 2RT?

Laboratory research conducted under Professor John Marshall demonstrated that the Ellex 2RT™ method causes the RPE to migrate and release matrix metalloproteinase (MMP), which are the enzymes that clean up Bruch's membrane. Further laboratory experiments to measure Bruch's membrane's ability to transport water and chemicals have shown the entire transport mechanism of the retina has been rejuvenated.

How is Ellex 2RT different from micropulse lasers and SRT?

Ellex 2RT™ is based on theory and research pioneered by Professor John Marshall over the past 30 years. Micropulse lasers and selective retinal therapy (SRT), presented in recent years, use higher energy laser pulses to kill RPE cells, which is a more aggressive approach than Ellex 2RT™.

What type of laser is used for Ellex 2RT?

The Ellex 2RT™ laser is a Q-switched green YAG laser that produces very precise 3 nanosecond pulses of 532nm light energy. The system was developed specifically for Ellex 2RT™ laboratory and clinical trials by the Ellex advanced research team in Australia. Although there are many types of lasers used in ophthalmology, Ellex 2RT™ parameters are unique and can only be performed with an Ellex 2RT™ laser system.

Is Ellex 2RT patented?

Yes, Ellex has international patents for the Ellex 2RT™ technology and method.

When will Ellex 2RT be commercially available?

At this point Ellex 2RT™ is a research program. Although early clinical data is encouraging, more trials are needed to establish the diseases that can be treated and the efficacy of Ellex 2RT™ for each indication. Product release will be dependent on the outcome of these trials.

What is photoregeneration?

Photoregeneration is a term used by Ellex to refer to SLT and Ellex 2RT™, which are both laser therapies that stimulate a natural biologic response in the eye to produce a therapeutic benefit without causing damage to the targeted structure in the eye. SLT is a photoregeneration therapy which restores function of the trabecular meshwork to lower intraocular pressure (IOP) in glaucoma patients. Ellex 2RT™ is a photoregeneration therapy which aims to restore function of the retina in diabetic and AMD patients.

*** Investigational device; not approved by the FDA for sale in the US.**