

# Ellex 2RT RETINAL REGENERATION THERAPY

**Ellex Retinal Regeneration Therapy (Ellex 2RT™) is a non-thermal laser therapy that stimulates a natural healing response in the eye. It is designed to treat a range of degenerative retinal diseases, including Age-Related Macular Degeneration (AMD) and Diabetic Retinopathy. Ellex 2RT™ offers the potential to treat earlier in the disease process, before significant vision loss has occurred.**

The effort to develop Ellex 2RT™ has been led by Prof. John Marshall since 2001 when he was appointed chairman of the Ellex Medical Advisory Board. Together with his research colleague, Dr. Ali Hussain, Prof. Marshall has spent many years researching the underlying causes of AMD. Initial laboratory studies successfully demonstrated that Ellex 2RT™ can be used to influence the early cause of AMD by triggering a cell regeneration process, thereby partially reversing or slowing the degradation that could lead to late Dry or Wet AMD.

Laboratory studies undertaken since 2001 have established the therapeutic effect of Ellex 2RT™. Research conducted at St. Thomas' Hospital, London, UK, demonstrated that Ellex 2RT™ influences the transport properties of the RPE and Bruch's membrane – key structures involved in the progression of AMD and Diabetic Retinopathy.

During the recent 2010 annual meeting of the Association for Research in Vision and Ophthalmology, Ellex reported the 6-month results for a series of pilot clinical studies aimed at evaluating the clinical efficacy of Ellex 2RT™ in the treatment of AMD and Diabetic Retinopathy:

## **2010 Early AMD Study Results**

This prospective study, which is being undertaken by Professor Robyn Guymer, MB, BS, PhD, FRANZCO, Head of Macular Research at the Centre for Eye Research Australia (CERA), is investigating the efficacy of Ellex 2RT™ for treating patients with bilateral high-risk early AMD and currently includes 14 patients at 6-months follow-up.

- **At six months the majority of patients experienced improvement in visual function and drusen reduction.**
- **Drusen decreased in 70% of treated eyes, demonstrating a partial reversal of the degenerative processes which cause AMD.**
- **Central visual function improved in 50% of treated eyes.**

According to Professor Robyn Guymer, "The initial results suggest that the application of Ellex 2RT to the affected eye eliminates the yellow deposits known as drusen which are present in the retinal tissue of people with AMD. By getting rid of the drusen from a patient's retina, we hope to reverse the degenerative processes caused by the disease."

## **2010 Diabetic Retinopathy Study Results**

This study is being undertaken by Associate Professor Robert Casson, MB, BS (Hons), DPhil, FRANZCO, to compare the efficacy of Ellex 2RT™ and retinal photocoagulation in the treatment of Diabetic Macular Edema (DME). At six months Ellex 2RT™ nanosecond laser treatment has produced very similar reductions in macular edema as compared to conventional retinal photocoagulation, whilst using approximately 500 times less laser energy and inducing no collateral damage.