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Success in Sussex: Rayner® marks 60 years of Pioneering IOL Innovation

The 1st intraocular lens manufacturer receives the Queen's Award for Enterprise in International Trade.

Rayner Intraocular Lens Limited, the distinguished intraocular lens (IOL) manufacturer based here in East Sussex, marked the 60th anniversary of the implantation of the 1st IOL in a patient with a celebration almost to the day of this historic surgery. The late Sir Harold Ridley implanted the first IOL on 29th November 1949 at St. Thomas Hospital in London. Due to the controversial nature of the surgery, this first surgery was conducted in almost total secrecy.

Held at the beautiful Royal Pavilion in Brighton, East Sussex, the celebration featured talks by London consultant ophthalmic surgeon, Charles Claoué as well as Rayner Chairman and Managing Director, Donald J. Munro.

The highlight of the evening was the presentation of the Queen's Award for Enterprise in International Trade. The award was presented by Her Majesty's Lord Lieutenant in East Sussex, Mr Peter Field, who was accompanied by Deputy Lieutenant Mr Hugh Burnett.

The Award is given to an elite group of UK companies that excel in business performance. It recognises sustained international trade in overseas markets and growing commercial success, and positions Rayner among the most successful businesses in the United Kingdom. Rayner is the only IOL manufacturer to be bestowed with such an honour. Rayner's success also throws light on its commitment to invest in the local economy of Sussex and heralds, 'Success in Sussex'.

The anniversary celebration was also attended by Mrs Celia Barlow, MP for the Hove and Portslade constituency; as well as several Rayner stalwarts including Christopher Morgan, former Chairman, Rayner Group, John Ingham, former Director Production, and Peter Brain, former Export Manager.

A few days after the celebration, as part of the recognition of this milestone, Mrs Barlow made the following statement during Prime Minister's Questions on the floor of the Commons: "Will the Prime Minister join with me in marking sixty years since British surgeon, Sir Harold Ridley, commissioned the Hove company, Rayner, to produce the first ever intraocular lens? This month Rayner were presented with the Queens Award for Enterprise and still work with charities restoring sight across the globe."

In his response, Prime Minister Gordon Brown noted that Rayner is one of the many excellent companies in existence in Hove. He further acknowledged the inventions of British scientists, engineers, medical researchers and all the companies who contributed to the success of ophthalmic medicine.

The Legacy of Rayner

By Donald J. Munro, Chairman and Managing Director, Rayner

Rayner has a unique legacy in the field of ophthalmology for a number of reasons.

First, as a company that will celebrate its 100th anniversary in 2010, we have been and will remain a company that proudly manufacturers its products in the United Kingdom. Second, as the 1st manufacturer of intraocular lenses, we stand witness to the amazing evolution this product has undergone since that first implantation in a cataract patient on November 29, 1949, 60 years ago.

From PMMA IOLs that required a large incision for implantation to today's small-incision, acrylic M-*flex*® and Sulco*flex*® designs, we have played an active role in moving IOL technology forward thanks to a tremendous partnership between our company and the surgeons that we work with.

We are marking the 60th anniversary of the implantation of 1st intraocular lens in two special ways: the ceremony of the 2009 Queen's Award for Enterprise in International Trade and a celebration that we called "Success in Sussex" to recognize Rayner's commercial success and the role our company played in that historic cataract surgery procedure carried out by Sir Harold Ridley.

The Queen's Award

This award is an extremely high honour and recognizes our commercial success in recent years in international trade. Every year for the past decade, Rayner has increased our export business and done so profitably. Today we sell our lenses in around seventy countries including Russia, India, South Korea and Australia, along with the United Kingdom/ Republic of Ireland and Germany.

THE QUEEN'S AWARDS FOR ENTERPRISE: INTERNATIONAL TRADE 2009

Every lens that we make is manufactured in our Hove facility and then checked and inspected many times before it's shipped out. Our lenses are as likely to be implanted in a farmer in Bangladesh as they are a businessman in Atlanta, Georgia or a two-year-old boy in Vienna, Austria.

We are very proud of our British heritage and our commitment to the UK and the area where we are based remains strong. Rayner is upgrading our plant and facilities, as well as hiring new people. We continue to make a significant investment into research and development in order to ensure that we continue to be at the forefront of IOL technology.

Looking ahead to 2010, when we will celebrate our 100th anniversary, I am excited at what the future holds for Rayner.

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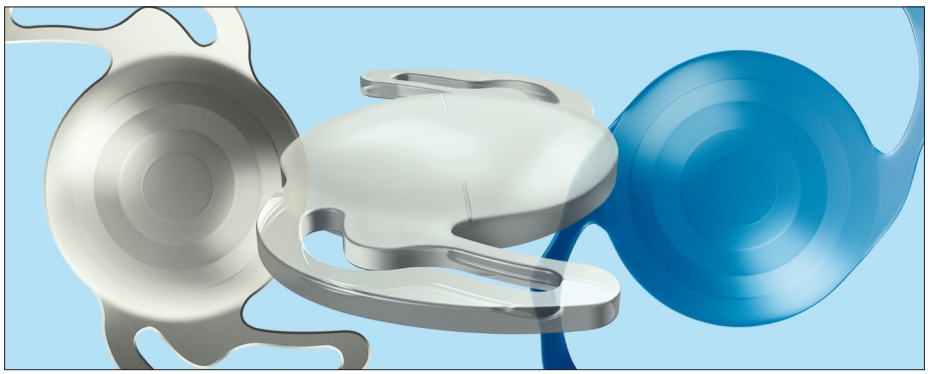
An Insight into the History of an Intriguing IOL Manufacturer



On the occasion of Rayner's commemoration of 60 years of pioneering achievement, Mr Charles Claoué, Consultant Ophthalmic Surgeon – Queens University Hospital, London made a remarkable presentation – taking everyone present at the historic settings of the Royal Pavilion in Brighton, on a journey down memory lane, into the many distinguished achievements of this great IOL manufacturer.

Rayner opened for business in 1910 as a flourishing optician manufacturer and today has more than 1,000 employees. The company was a great success, but the real jewel in the crown came almost 40 years later in the creation of the first intraocular lens. On a landmark day in November 1949, Sir Harold Ridley made history by implanting an artificial lens into a cataract patient, an IOL created by Rayner.

Cataracts – From Couching to Conquest with the IOL

Mr. Claoué enlightened one and all on the inception of the IOL and its use in cataract surgery. He drew a colourful picture of how cataracts were treated in antiquity by couching or squeezing the cataract into the vitreous cavity away from the visual axis with a needle, enabling partial vision to a completely blind person. The damage done through couching procedures and the poor optics of aphakia limited its use to desperate circumstances.

This method progressed to intracapsular cataract extraction (ICCE) of making an incision in the eye and extracting the cataract. It involved the removal of the lens and the surrounding lens capsule in one piece. While this procedure had a success rate from 33 to 66 percent, it resulted in a relatively high rate of complications due to the large incision required and pressure placed on the vitreous body.

Cataract extraction using ICCE is rarely performed these days and has been superseded by phaco & extracapsular cataract extraction (ECCE). In today's world, surgeons use a phacoemulsification needle to perform a cataract extraction. However the classic means of correcting post-operative aphakia with thick spectacles was less than satisfactory because of visual distortions and aberrations inherent in high-powered lenses.

The idea of an IOL had existed for centuries, and there were even attempts to insert glass lenticular implants, but these were too heavy and destroyed the eye. Undoubtedly, many ophthalmologists had for decades understood the tremendous optical advantages that an artificial replacement lens inside the eye could provide.

However it was Sir Ridley who invented a shape and innovated the concept of the material for the IOL. He got the idea by studying the injured eyes of WWII RAF pilots, who had shards of the cockpit windscreen made of Perspex (Polymethyl methacrylate) in their eyes. The PMMA appeared inert within body tissues. So, Perspex was chosen as the preferred material because of its lightness with good optical properties and almost the same specific gravity as aqueous humor.

Multiple Lenses – Common Platform for Perfection

Obviously, IOL designs have evolved dramatically since that first PMMA lens, with Rayner developing many innovative new technologies, particularly the C-*flex*® platform.

The C-*flex*® platform is crucial because it gives stability against decentration, rotational instability, tilt and capsular opacification without which the optics will not work. All Rayner IOLs are built on this robust platform. Any lens manufactured by Rayner can be injected through a common single-use injector making lens implantation a quick and simple process for the surgeon and an accurate procedure for the patient.

Rayner Innovation over the Past 12 Years

Rayner continues its innovative zeal of delivering superior IOL and supplementary products over the years:

1998: Ray*soft*, hydrophilic acrylic lens

1999: C-*flex*® design introduced; Ray*visc*, viscoelastic solution; Titanium Range of surgical instruments and the Ray*sharp* range of disposable ophthalmic knives.

2002: Quarter powers to C-*flex*®

2003: Injectable Toric Lens; flagship IOLs, C-*flex*® and Super*flex*®; Rayner single-use, disposable IOL injector; Amon-Apple Square Edge lens, which reduces posterior capsular opacification.

2005: 'Soft-tipped' single use, disposable IOL injector

2006: M-*flex* T®, the first lens to offer multifocal IOL technology to patients with significant corneal astigmatism; T-*flex*® Toric IOL and the M-*flex*® Multifocal IOL, both lenses being unique in having the benefit of *AVH* Technology® for stability and the Amon-Apple Enhanced Square Edge for low PCO.

2007: Sulco*flex*® Pseudophakic Supplementary IOLs, unlike conventional 'piggy-back' IOL implantations the unique design of Sulco*flex*® ensures that the potential for contact between the two implants is minimised.

Sixty years on with the support of worldwide charity organisations, Rayner's IOLs have restored sight to thousands worldwide. The company's meaningful engagements with ophthalmologists are guided not by mere commercial interests but by a great desire to restore vision to those who need it.

Claoué interspersed his presentation with several vivid accounts of successful case stories of patients implanted with Rayner lens. He concluded his presentation by recalling Sir Ridley's desire to be remembered as an enabler in the cure for cataract with the implantation of an artificial intraocular lens. Ridley has rightly lived up to that desire, which continues to thrive in the hearts of Rayner employees worldwide.

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