



Essilor launches Crizal® Previncia™ : the first preventive lenses offering selective protection from harmful blue light and UV rays

(Charenton le Pont, 28 February 2013) - Essilor, world leader in ophthalmic optics, is reinforcing its commitment to visual health with the launch in 2013 of the first preventive lenses offering selective protection against harmful blue light -one of the risk factors in retinal cell degeneration- and against UV rays, which contribute to the development of cataracts. Prevention, such as protecting the eye from harmful light, is currently the first line of defence against the worldwide problems of age-related macular degeneration (AMD) and cataracts. These conditions currently affect more than 350 million people around the world, a figure that may double in the next 30 years with the ageing of the population.

A major discovery by Essilor and Paris Vision Institute

This major innovation was made possible thanks to an ambitious four-year research programme conducted in partnership with Paris Vision Institute, one of Europe's largest eye health integrated research centers. Under the leadership of Professor Sahel and after two years of research, a joint Essilor and Vision Institute team was able to identify with a high level of accuracy the portion of the visible light spectrum that is noxious to target retinal cells.

Emitted by the sun and also by artificial light sources such as LEDs and computers or smartphones, blue light -the range of the visible light spectrum with wavelengths between 380-500 nm- plays a beneficial role on health, in particular by regulating the internal biological clock. However, a specific band of this light might have a harmful effect on the eyes.

In order to identify the part of the spectrum that is damaging to the human retina, the joint team developed a completely new protocol: an *in vitro* test on retinal cells with narrow screening light exposure to determine the harmfulness of rays depending on their wavelength. This test -a scientific first in ophthalmic optics- allowed for the discovery that wavelengths between 415 and 455 nm (spectral band centered at 435 nm +/- 20nm) are the most harmful for the target retinal cells.

A selective photo-protection lens to reduce the risks of AMD and cataracts

After two years of research, the company has developed the Crizal® Previncia™ lens, which is able to protect the eye from wavelengths that contributes to the degeneration of retinal cells while allowing beneficial blue light to pass through. This is a new category of preventive lenses developed using Light Scan™, an exclusive technology which filters light selectively:

- by letting beneficial blue light pass through;



- by filtering out harmful blue-violet rays that can contribute to AMD, as well as UV rays, an important cause of cataracts;
- while maintaining the transparency of the lens.

3.2 billion people currently affected

The battle against these irreversible eye conditions is targeted at the entire population, but primarily the 1.3 billion children around the world and the 1.9 billion over-45s who are currently more vulnerable to blue-violet light. During childhood, the eye is very transparent and lets all visible light and some UV pass through to the retina; after 45, its natural defence system is weakened. There will be 3.7 billion people aged over 45 in 2050.

Hubert Sagnières, CEO of Essilor International, comments: *“This discovery will be a landmark in the field of optical science and we are very proud to have contributed, alongside Professor Sahel’s research teams, to this major step forward in the battle against one of the most devastating eye conditions. With Crizal Previncia, we are today pioneers in addressing the challenge of preventative innovation. This fits in fully with Essilor’s strategy of playing a predominant role in the implementation of solutions for better visual health for everyone, all over the world.”*

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About Essilor

The world’s leading ophthalmic optics company, Essilor designs, manufactures and markets a wide range of lenses to improve and protect eyesight. Its corporate mission is to enable everyone around the world to access lenses that meet his or her unique vision requirements. To support this mission, the Company allocates around €150 million to research and development every year, in a commitment to continuously bring new, more effective products to market. Essilor’s flagship brands are Varilux®, Crizal®, Definity®, Xperio®, Optifog™ and Foster Grant®. It also develops and markets equipment, instruments and services for eyecare professionals.

Essilor reported consolidated revenue of €4.2 billion in 2011 and employs around 48,700 people in some 100 countries. It operates 19 plants, a total of 390 prescription laboratories and edging facilities, as well as several research and development centers around the world.

Essilor was classified by Forbes magazine as being among the world’s 30 most innovative companies.

For more information, please visit www.essilor.com.

The Essilor share trades on the NYSE Euronext Paris market and is included in the EuroStoxx 50 and CAC 40 indices. Codes and symbols: ISIN: FR0000121667; Reuters: ESSI.PA; Bloomberg: EI:FP.

About Paris Vision Institute: *Paris Vision Institute (UPMC, Inserm, CNRS) is the 1st French research center dedicated to scientific and medical research on eye diseases. Settled at the heart of the Quinze-Vingts eye hospital, it gathers all the actors of the research around a common objective: accelerate innovation to the benefit of patients..*

Essilor Crizal ® Previncia™ lenses are Class I medical devices intended for the correction of ametropias and presbyopia and offering selective protection from harmful blue light and UV rays. In compliance with French law of December 29th, 2011 and with the decree of May 9th, 2012 Essilor informs you that the above information is general information given as prevention and public awareness. For more information Essilor invites you to consult a healthcare professional.