Vienna, 3 June 2015

Giving the gift of sight and quality of life
4,000 European eye specialists to meet in Vienna at the start of June for the SOE2015 ophthalmology congress.

From 6-9 June the latest findings from the worlds of neuro-ophthalmology, retina research and corneal surgery will be presented at the Austria Center Vienna. These advances will provide a ray of light for around 3.43 million patients in Austria alone.

3.43 million Austrians suffer from eye diseases
In industrial countries some 40% of people are affected by some form of eye disease, with numbers reaching 3.43 million in Austria. Around half of these are accounted for by silent eye diseases, which in many cases remain undetected for long periods without regular check-ups by a specialist – conditions that require treatment at an early stage if quality of life is to be preserved. Silent eye diseases include diabetic macular degeneration, which can lead to blindness if left untreated. In some conditions such as glaucoma, caused by high eye pressure, the damage is already irreversible by the time that initial symptoms such as a restricted field of vision manifest themselves. “It is essential that patients commit to regular eye examinations at all stages of their lives. Unfortunately, a simple consultation with a qualified optician does not represent a viable alternative to retinal exams, which are vital,” explained Professor Susanne Binder, head of the Department of Ophthalmology at the Rudolfstiftung hospital and the Ludwig Boltzmann Institute for Retinology and Biomicroscopic Laser Surgery, who is also a member of the SOE Congress committee.

The types of eye disease vary according to the age of the patient. While children and teenagers suffer from short sightedness, far sightedness, defective vision and strabismums, adults aged between 20 and 40 are more likely to suffer from dry eyes, inflammations and other symptoms that, although perceived as eye disease, are in fact caused by other conditions. It is precisely this diagnostic grey area that makes ophthalmology such an important interdisciplinary specialism that covers otolaryngology (ENT), dermatology, neurology, internal medicine and paediatrics. Neuroophthalmology, for instance, establishes a connection between symptoms such as visual field abnormalities and their neurological causes. Once patients reach 40, conditions such as glaucoma, cataracts, age-related macular degeneration (AMD) and diabetic retinopathy start to become more prevalent. The risk of eye disease also rises sharply in this age group, with 60% of over 45s and 80% of 75 year olds presenting with eye disease of some description.

Austria playing a key role in the treatment of retinal diseases
Discussions of the latest advances in the treatment of eye diseases at the SOE Congress are set to confirm the important role played by Austrian specialists. A number of major breakthroughs have been made in various therapy models, particularly those used to treat degenerative retinal diseases, such as age-related macular degeneration, which are the most common causes of blindness in old age. A Geneva-based European research project involving Prof. Susanne Binder’s team at the Rudolfstiftung hospital in Vienna is focusing on the use of genetically-modified retina cells to treat macular degeneration. A number of other
centres in Japan, the USA and the United Kingdom are using embryonic stem cells in clinical studies. The status-quo of this research and new pharmacological therapies used in different forms of macular degeneration are central topics at this year’s international ophthalmological congress.

New surgical techniques made possible by Austrian OCT methods and laser technology
Vienna also leads the way when it comes to surgical techniques used in retinal research. A team led by Professor Wolfgang Drexler, head of the Centre for Medical Physics and Biomedical Engineering at Meduni Vienna, was instrumental in the development of **optical coherence tomography (OCT)**, which also has its origins in the Austrian capital. Prof. Susanne Binder and her colleagues at the Rudolfstiftung hospital joined forces with precision optics manufacturer Carl Zeiss Meditec to develop an OCT device that enables surgeons to use this imaging technology while operations are in progress. The prototype was successfully commissioned in Vienna in 2009 and has been helping to improve the outcome of cataract operations and vitrectomy surgery ever since. Various other OCT methods have also been developed at Vienna General Hospital, which carries out examinations using the technology on around 30,000 patients each year.

Salzburg is breaking new ground in **cataract and corneal surgery** owing to the achievements of a research group headed by Prof. Günther Grabner. Here, innovative laser techniques are being used to provide lasting respite from conditions such as defective vision and clouding of the lens. In 2012 Grabner’s work was recognised with the International Society of Refractive Surgery’s Barraquer Award, the Oscar of the retinology world.

**Medicinal advances thanks to combination therapies**
Pharmaceutical research is also chalking up the successes thanks to the use of new combination therapies. AMD treatment has until recently been restricted to targeting a single protein as a cause of a disease, but new combination medicines now allow specialists to treat multiple triggers at the same time. Before this breakthrough it had only been possible to treat wet AMD using pharmaceuticals.

**Patients living 5 years longer after therapies and affordable operations**
All of the pioneering discoveries under discussion at the SOE Congress help to optimise existing operation techniques for patients and improve quality of life – particularly for older people – by preserving sight for longer. These advances make it possible for people to work without glasses and undergo therapies with fewer side effects.

Eye therapies are among the most common of all treatments and, from a value for money perspective, eye operations are among the cheapest of all surgical procedures, with the improvements in sight helping to extend life expectancy by an average of 5 years.

**About the SOE**
The European Society of Ophthalmology (SOE) is made up of 40 national member societies in Europe. Every two years its members get together at the SOE Congress, which will bring 4,000 eye specialists to the Austria Center Vienna this year, to discuss the latest advances in ophthalmology.

**About the Austria Center Vienna**
The Austria Center Vienna (ACV) is operated by Internationales Amtssitz- und Konferenzzentrum Wien, Aktiengesellschaft (IAKW-AG), which is also responsible for maintaining the Vienna International Centre (VIC). The ACV is Austria's largest conference centre, with 24 halls, 180 offices and meeting rooms, and some 42,000 square metres of event space (including 22,000 square metres of exhibition space), and is one of the top players on the international conference circuit. IAKW-AG and the ACV are headed by Chief Executive Officer Susanne Baumann-Söllner. www.acv.at.

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