Zeltia’s subsidiary Sylentis begins Phase II clinical trial with SYL040012 for the treatment of ocular hypertension and glaucoma

- SYL040012 is a new compound developed by Sylentis from its research in ophthalmological disorders.
- It is indicated for treating ocular hypertension and glaucoma.
- SYL040012 is a drug which functions via RNA interference (RNAi).
- Sylentis is one of first five companies in the world to move RNAi-based products into clinical trials.

Madrid, 13 June 2012: Sylentis, a biopharmaceutical subsidiary of Grupo Zeltia (MC: ZEL) and a pioneer in the research and development of new drugs based on gene silencing via RNA interference (RNAi), has received authorisation from the Spanish and Estonian regulatory agencies to commence Phase II clinical trials with SYL040012 for the treatment of ocular hypertension and glaucoma.

The Phase II multicentre, randomised, parallel-group, placebo-controlled, masked trial will be performed in Spain, Estonia and Germany. This trial begins after showing that this drug was safe and well tolerated in a Phase I trial when administered under the trial conditions. These Phase I results were presented in March at the 7th Conference of the Spanish Glaucoma Society, in Alicante, Spain.

The endpoint of this Phase II trial is to evaluate the effect on intraocular pressure of a range of doses of the drug on 80 patients with ocular hypertension or glaucoma. This is Sylentis's fourth clinical trial using RNAi technology. SYL040012 is its first compound to enter clinical trials, evidencing the company's commitment to developing innovative compounds to treat eye diseases. Sylentis is the first company in Spain and one of the first five companies in the world with RNAi-based products in clinical trials.

The company has another compound, SYL1001, which has completed a Phase I clinical trial in ocular pain associated with dry eye syndrome.

About SYL040012
In preclinical trials with SYL040012, the siRNAs administered topically to treat ocular hypertension associated with open-angle glaucoma have proven effective in vivo. These trials concluded that the model of transient hypertension induced by fluid overload is valid for evaluating the efficacy of different drugs on glaucoma since it does not produce alterations in the various ocular structures. These trials showed that pretreatment with SYL040012 prevents the induced increase in intraocular pressure in this ocular hypertension model. The prophylactic effect of this compound is greater than the one described previously in this model with drugs currently used for treating glaucoma, such as timolol or Xalatan.

About Sylentis

Founded in 2006 as a spin-off from Grupo Zeltia’s subsidiary Genómica, S.A.U., Sylentis is a subsidiary of Grupo Zeltia and a key player in the search for new therapies based on RNA interference (RNAi). Its strategy focuses on the efficient design of siRNAs using proprietary technology: SIRFINDER®, which finds small fragments of RNAi (short interfering RNAs, siRNAs) with pharmaceutical potential by searching for appropriate sequences using bioinformatics; once the disease’s target gene has been identified, SYLENTIS develops a quick and economical solution for siRNAs to silence that gene.

About RNA interference (RNAi)

RNA interference (RNAi) has emerged in recent years as a promising technology with therapeutic applications. Discovered first in plants in the 1990s and subsequently in the animal kingdom at the turn of the century, RNAi mediates highly efficient, selective and specific inhibition of gene expression (Fire et al., 1998). RNA interference is mediated by small fragments of double-stranded RNA, consisting of 19-23 nucleotides, which promote degradation of mRNA, thus inhibiting synthesis of the proteins for which they code. As this mechanism is used naturally by cells to regulate gene expression in a way that is both non-toxic and highly effective, RNAi has great therapeutic potential.

About open-angle glaucoma

Primary open-angle glaucoma (POAG) is the most prevalent form of glaucoma, accounting for approximately two-thirds of all diagnosed cases of glaucoma. It is defined as a multifactorial optic neuropathy consisting of a loss of retinal ganglion cells and characteristic atrophy of the optical nerve leading to progressive, irreversible blindness. The risk factors of POAG include high intraocular pressure (IOP), a family history of the disease, and old age (Marquis and Wilson, 2005). Although the physiopathological mechanisms by which high pressure leads to neuron damage are not known, most current therapies include drugs or surgery which seek to reduce IOP to a level that safely prevents progressive loss of vision.

About ocular pain associated with dry eye syndrome

Eye pain can be described as a burning, throbbing or stabbing sensation in the eye or around it, or the feeling that there is a foreign body in the eye. Chronic eye pain is generally associated with eye pathologies such as dry eye syndrome. Easing this symptom is essential for improving patients’ quality of life. There are currently no drugs approved specifically for reducing chronic eye pain.

Further information from: +34 91 444 4500

(*) This note is also available on the Sylentis website: www.sylentis.com and on the Zeltia website: www.zeltia.com