ORYZON

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## Oryzon nominates bispecific LSD1/MAOB inhibitor as drug candidate to enter preclinical development in Huntington's Disease

Barcelona, Spain, February 5th, 2012

ORYZON announced today that it is entering preclinical development with its first drug candidate, a first-in-class bispecific Lysine Specific Demethylase 1 (LSD1) and Monoamine oxidase B (MAO-B) inhibitor for the treatment of Huntington disease (HD). These inhibitors increased survival time and improved several behavioral and motor parameters in different transgenic animal models.

Monoamine oxidase B (MAOB) is a flavin-dependent enzyme and a therapeutic target for the treatment of neurological disorders. Abnormally high levels of monoamine oxidase (MAO-B) activity have been identified in the human HD brain, and there is mounting evidence that the metabolism of the transmitter dopamine by the MAO enzymes may contribute to striatal damage in mitochondrial toxin-induced models of HD.

Lysine specific demethylase 1 (LSD1) is an enzyme that removes methyl groups from lysine 4 of histone H3 proteins that organize the nucleosomes, an epigenetic modification that leads to a repression of transcriptional activity of the target genes. LSD1 has been suggested as a possible target for cancer, viral infections and neurodegenerative disorders.

ORYZON's LSD1 inhibitors increased survival time and improved several behavioral and motor parameters in no less than three different transgenic HD models (HD flies and R6/1 and R6/2 transgenic mice).

Oryzon's drug candidate is a compound with a low MW, good pharmacological properties, orally bioavailable, with remakable BBB crossing properties and a good safety and selectivity profile.

With no cure, Huntington's disease is a devastating inherited disease that causes the progressive degeneration of neuronal cells in the brain and leads to cognitive decline and dementia. The disease has a broad impact on a person's functional abilities as there is no cure for HD and full-



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time care is required in the later stages of the disease. Current treatments are not diseasemodifying, only aimed at symptomatic treatment and even then not highly efficacious. Therefore the medical need for this 'orphan' disease remains high.

For all these reasons, Oryzon has decided that it is entering preclinical development with its first drug candidate, a first-in-class bispecific LSD1 and MAO-B inhibitor, for the treatment of Huntington's disease.

Carlos Buesa, CEO of Oryzon said: "Based on the exciting results from our research and the views of key opinion leaders in HD, we hope that targeting both LSD1 and MAO-B will provide a more effective therapy for patients suffering this devastating disease. This candidate nomination is also a demonstration of the Oryzon's leadership in epigenetically based therapeutic approaches. Our patent portfolio makes us the partner of choice for exploring the therapeutic possibilities of LSD1 and related enzymes"

## About Oryzon

Founded in 2000, Oryzon (<u>www.oryzon.com</u>) has one of the most complete technological platforms for biomarker identification in Europe. With a strong specialization in genomics, proteomics and bioinformatics, the company has a powerful platform for biomarker and target validation which includes technologies such as RNAi, microarrays, phage display and a structural genomic platform with a fragment screening approach (NMR and X ray crystallography). The company has identified biomarkers for a variety of neoplasic and neurodegenerative diseases. Oryzon develops new drugs, including monoclonal antibodies and NCEs directed against targets identified in its biomarker discovery programs.

Besides the therapeutic activities, Oryzon develops Diagnostic solutions directed against biomarkers identified in its discovery programs.

**GynEC®-DX** is a good example of the Diagnostic activity of the company. This product was discovered after 5 years of intense research. It is a signature of 5 genes differentially expressed that are highly accurate to determine cancer status in uterine aspirates and when combined with pathology on aspirates has a Negative predictive value of 99,6% according to the results obtained in a recent multi-centric double blind prospective study. The company has obtained the Spanish equivalent to CLIA accreditation for performing Human Diagnostic activities and the Manufacturing Register approval from the Spanish Agency for Drugs and Medical Devices (AEMPS). Commercialization of this product that has been developed by Oryzon and Laboratorios Reig-Jofré (LRJ) in a 50:50 Joint Venture, is expected in 1Q 2012. Commercialization and analysis are going to be performed directly by LRJ and Oryzon in Spain and out-licensed to international partners for the rest of the world.

## Other launches under way

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To complete its Diagnostics franchise, Oryzon entered into a partnership in the field of molecular diagnostics with New Zealand firm Pacific Edge Ltd in 2011. According to the agreement, Oryzon holds an exclusive license to market the Cxbladder<sup>®</sup> assay, which detects bladder cancer in urine in some European countries. Oryzon will run the Cxbladder test in its Clinical Analysis Lab. The company expects to introduce a third product in the Spanish market in 2012.

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