



NicOx' naproxcinod shows robust blood pressure results in phase 3 pooled analysis

First compound in the CINOD class shows similar blood pressure profile to placebo, with clear differentiation from a widely used NSAID

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NicOx S.A. (NYSE Euronext Paris: COX) today announced positive results of a pre-specified pooled analysis of 2,734 patients with osteoarthritis (OA) from the 301, 302 and 303 pivotal phase 3 studies for naproxcinod. Both doses of naproxcinod showed a significant reduction in systolic and diastolic blood pressure (SBP and DBP) compared to naproxen 500 mg bid over the whole 13 week period ($p < 0.001$ for naproxcinod 750 mg bid and $p < 0.05$ for naproxcinod 375 mg bid). Naproxcinod is the first compound in a novel class of anti-inflammatory agents known as Cyclooxygenase-Inhibiting Nitric Oxide Donators (CINODs).

A significantly lower proportion of patients on naproxcinod experienced an increase in SBP of 5 mmHg or more, compared to naproxen

Over the whole 13 week period the proportion of patients whose SBP increased by 5 mmHg or more was higher for naproxen 500 mg bid, as compared to naproxcinod 750 mg bid ($p < 0.001$), naproxcinod 375 mg bid ($p = 0.013$) and placebo ($p < 0.001$).

Both naproxcinod doses showed a similar blood pressure profile to placebo, in contrast to naproxen which raised SBP ($p < 0.001$)

There is a clear unmet medical need for a novel anti-inflammatory agent with no detrimental impact on blood pressure. COX-2 inhibitors and traditional non-steroidal anti-inflammatory drugs (NSAIDs), such as naproxen, are widely used for the symptomatic treatment of OA but can lead to the onset of new episodes of high blood pressure or worsening of pre-existing hypertension. Both doses of naproxcinod (375 and 750 mg bid) were similar to placebo, as indicated by one-sided 95% confidence intervals (CIs). In contrast, naproxen 500 mg bid raised SBP compared to placebo ($p < 0.001$).

Garret FitzGerald, MD, Professor of Medicine and Pharmacology at the University of Pennsylvania School of Medicine, commented: *"The present results for naproxcinod reinforce those of previous studies and show a similar blood pressure profile to placebo in a large population of chronically treated OA patients from three major phase 3 studies. They also reveal that naproxcinod is less likely to elevate blood pressure than naproxen, a commonly used NSAID. Increasing appreciation of the prevalence of hypertension amongst OA patients and its relevance as a complication of NSAID use suggest that naproxcinod will be an attractive new option for physicians."*

NicOx has completed a regulatory phase 3 program for naproxcinod in patients with OA of the knee (the 301 and 302 studies) and hip (the 303 study), with all three studies achieving highly statistically significant results on all three co-primary efficacy endpoints (see press releases of June 13, September 15 and November 24, 2008). NicOx plans to submit a New Drug Application (NDA) for naproxcinod to the US Food and Drug Administration (FDA) in mid-2009.

The top-line results announced today relate to the Office Blood Pressure Measurements (OBPMs) collected in a rigorous and standardized manner in each of the phase 3 studies at baseline and at weeks 2, 6 and 13 (see NOTE 1). This OBPM data was pooled and analyzed according to a prospectively designed statistical plan.

The objective of this pooled analysis was to evaluate the profile of naproxcinod 375 mg bid and 750 mg bid on blood pressure in a large OA population up to and including 13 weeks, compared to placebo and naproxen 500 mg bid. The statistical analysis plan pre-specified the calculation of 95% CIs and the statistical methods used to make these comparisons (see NOTE 2). The calculation of p values was not planned, although they have been included in this press release for illustrative purposes.

Naproxcinod 750 mg bid lowered SBP and DBP compared to naproxen with high statistical significance (p<0.001)

The results showed that naproxcinod 750 mg bid lowered SBP by 2.2 mmHg (p<0.001) and DBP by 1.2 mmHg (p<0.001) compared to naproxen 500 mg bid, in terms of the mean change between baseline and the average over weeks 2, 6 and 13. Naproxcinod 375 mg bid lowered SBP by 1.2 mmHg (p<0.05) and DBP by 0.8 mmHg (p<0.05) compared to naproxen, in terms of the mean change between baseline and the average over weeks 2, 6 and 13.

Both doses of naproxcinod showed a similar blood pressure profile to placebo, as indicated by 95% CIs. In contrast, naproxen 500 mg bid raised SBP by 2.0 mmHg (p<0.001) compared to placebo, in terms of the mean change between baseline and the average over weeks 2, 6 and 13.

Further analyses are ongoing and NicOx plans to disclose more detailed results at leading medical conferences and in peer reviewed scientific publications during 2009 and 2010.

Michele Garufi, Chief Executive Officer of NicOx, commented: *“These compelling blood pressure data confirm the unique profile of naproxcinod and complete the pivotal phase 3 program for the NDA submission. Individually, all three pivotal regulatory studies gave positive efficacy and safety results for both doses of naproxcinod. We are confident that naproxcinod will become an important treatment option for OA and we look forward to 2009, when NicOx will enter a new and exciting phase.”*

NOTE 1: Office Blood Pressure Measurements (OBPMs) were taken at baseline and at weeks 2, 6 and 13. The measurements were performed by a health care professional during a patient’s visit to the treatment center using a standard technique and equipment (i.e. a sphygmomanometer) with the patient in the sitting position. OBPMs were performed in the morning and the time between intake of study-drug and measurement of OBPM was between 2 and 4 hours. Three measurements were taken at each visit, using standard American Heart Association (AHA) and Joint National Committee (JNC) 7 criteria (Pickering 2005, Chobanian 2003). Further initiatives were taken to best control the OBPMs. For example, they were performed after 5 minutes of rest, with a one minute interval between each reading, and it was specified that the patients should remain quiet, without conversation during the measurements. It was also specified that the same arm should be used for the OBPMs at all visits, with a cuff appropriate to the arm size.

NOTE 2: The statistical plan pre-specified CIs with an alpha level of 5% (one-sided for comparisons of mean changes from baseline versus placebo and two-sided for comparisons versus naproxen). CIs are obtained from pair-wise contrasts from a mixed model meta-analysis with study, treatment and baseline as fixed effects, and assuming heterogeneous (non constant) within study variance. P values for categorized changes from baseline are based on the same mixed model meta-analysis as above performed on log odds ratios from logistic regression. No formal statistical hypotheses were defined and no adjustments were made for the multiple statistical tests performed.

NicOx (Bloomberg: COX:FP, Reuters: NCOX.PA) is a product-driven biopharmaceutical company dedicated to the development and future commercialization of investigational drugs for unmet medical needs. NicOx is applying its proprietary nitric oxide-donating technology to develop an internal portfolio of New Chemical Entities (NCEs) in the therapeutic areas of inflammatory and cardio-metabolic disease.

Resources are focused on the development and pre-commercialization activities for naproxcinod, a proprietary NCE and the first compound in the Cyclooxygenase-Inhibiting Nitric Oxide-Donating (CINOD) class of anti-inflammatory agents for the treatment of the signs and symptoms of osteoarthritis. Naproxcinod has completed three pivotal phase 3 studies with positive results and the submission of a New Drug Application (NDA) to the US Food and Drug Administration (FDA) is projected for mid-2009.

Beyond naproxcinod, NicOx has a pipeline containing multiple nitric oxide-donating NCEs, which are in development internally and with partners, including Pfizer Inc and Merck & Co., Inc., for the treatment of prevalent and underserved diseases, such as atherosclerosis, hypertension, widespread eye diseases and Chronic Obstructive Pulmonary Disease (COPD).

NicOx S.A. is headquartered in France and is listed on the NYSE Euronext Paris (Compartment B: Mid Caps).



This press release contains certain forward-looking statements. Although the Company believes its expectations are based on reasonable assumptions, these forward-looking statements are subject to numerous risks and uncertainties, which could cause actual results to differ materially from those anticipated in the forward-looking statements.

For a discussion of risks and uncertainties which could cause actual results, financial condition, performance or achievements of NicOx S.A. to differ from those contained in the forward-looking statements, please refer to the Risk Factors ("Facteurs de Risque") section of the Document de Reference filed with the AMF, which is available on the AMF website (<http://www.amf-france.org>) or on NicOx S.A.'s website (<http://www.nicox.com>).

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