PRESS RELEASE

NicOx initiates proof-of-principle clinical study for NCX 6560

First-in-man study for an innovative investigational drug, representing a global therapeutic approach for reduction of cardiovascular risk

March 18, 2009. Sophia Antipolis, France. www.nicox.com

NicOx S.A. (NYSE Euronext Paris: COX) today announced the initiation of clinical development for NCX 6560, a novel, nitric oxide-donating compound which could become an improved investigational drug for serious cardiovascular diseases. The first-in-man study will enroll both healthy male volunteers and those with abnormally raised cholesterol and will compare NCX 6560 to placebo and atorvastatin (Lipitor®), with a preliminary evaluation of activity, safety and tolerability. The initiation of this study follows promising pre-clinical results which suggest NCX 6560 could inhibit multiple steps in the development of atherosclerosis, a key dysfunction underlying cardiovascular disorders.

"The initiation of clinical trials for NCX 6560 represents a major advance for the Company," said **Michele Garufi, Chief Executive Officer of NicOx.** *"This promising drug candidate is a new chemical entity discovered by our research laboratories, which has the potential to be developed in cardiovascular indications which go beyond lipid lowering. Moreover, this milestone confirms our strategic decision to grow as a research-driven pharmaceutical Company and expand our drug discovery projects in the cardiometabolic area, where nitric oxide plays a fundamental physiological role. We will continue to execute on this strategy, alongside our planned participation in the commercialization of naproxcinod."*

The objective of this phase 1 proof-of-principle study is to assess the safety, tolerability, pharmacokinetic and pharmacodynamic profile of single and repeated escalating doses of NCX 6560. The trial will also follow a biomarker relevant to cardiovascular disorders, in order to provide the first evaluation of the compound's activity in man and guide its future development. The study design consists of three parts:

- Part 1 is a double-blind, placebo-controlled, single escalating dose study in 40 healthy male volunteers. The subjects will receive a single dose of either NCX 6560 or placebo.
- Part 2 is a double-blind, placebo- and active-controlled study and will use repeated escalating doses in 48 male volunteers with high levels of low-density lipoprotein (LDL) cholesterol. The subjects will receive NCX 6560, Lipitor® or placebo once-daily for 14 days.
- Part 3 is a double-blind, placebo-controlled, single dose food effect study, enrolling the 10 healthy male volunteers who received the highest tolerated dose in part 1. Subjects will stay in the same treatment arm (NCX 6560 or placebo) but the dose will be administered following a high-fat breakfast to assess the food effect.

Atherosclerosis is a dysfunction of the blood vessel wall, which is believed to be the main, initial pathological event in numerous cardiovascular disorders. The development of atherosclerotic plaques is a complicated, multi-step process, involving the build up of fatty deposits, due to raised cholesterol, inflammation and abnormal cell growth. Through the sustained release of nitric oxide, NCX 6560 has the potential to inhibit multiple steps in the development of atherosclerosis, including: endothelium dysfunction, vascular inflammation, abnormal cell growth and ultimately platelet adhesion and clotting.

Jacques Djian MD, Cardiologist and Vice-President of Translational Medicine at NicOx, commented: "*We are very pleased to be advancing this promising compound into man. This three-part study will enroll both healthy and hypercholesterolemic volunteers, with an assessment of a relevant cardiovascular biomarker, and it is therefore expected to give us more information regarding efficacy than a typical phase 1 study. Furthermore, Lipitor®, the most widely used statin for primary and secondary cardiovascular prevention, is being included as an active comparator in the second part and this should give us important additional data on NCX 6560's profile.*"

Lipid lowering drugs are currently used as a preventative treatment for patients at risk of cardiovascular diseases, including angina, heart attack and stroke. Statins are the most widely used class and represent the highest selling prescription drugs worldwide, with global sales exceeding $18 billion in 2007 (Datamonitor 2008). The ability of these compounds to reduce the risk of cardiovascular events is primarily associated with their cholesterol lowering activity, although there is evidence that they have additional (but limited) beneficial effects, which are believed to be derived from their propensity to enhance nitric oxide biosynthesis.

NicOx S.A.,
Les Taissounières – Bât HB4 – 1681 route des Dolines - BP313, 06906 Sophia Antipolis cedex, France. Tel. +33 (0)4 97 24 53 00 • Fax +33 (0)4 97 24 53 99

The advancement of NCX 6560 into clinical studies follows promising preclinical results, where it showed superior anti-platelet and anti-inflammatory activity and improved endothelial function *in vivo*, compared to Lipitor®, in addition to a similar lipid lowering effect.

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 Cyclooxygenase-Inhibiting Nitric Oxide-Donating (CINOD) anti-inflammatory agent 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 respiratory conditions.

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

COX
LISTED
NYSE
EURONEXT

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*).*

CONTACTS: http://www.nicox.com
NicOx: Karl Hanks Director of Investor Relations and Corporate Communication
Tel +33 (0)4 97 24 53 42 • hanks@nicox.com

Media in the United States – FD Robert Stanislaro • Tel +1 212 850 5657 • robert.stanislaro@fd.com
Irma Gomez-Dib • Tel +1 212 850 5761 • irma.gomez-dib@fd.com

Media in Europe – Citigate Dewe Rogerson David Dible • Tel +44 (0)207 282 2949 • david.dible@citigatedr.co.uk
Nina Enegren • Tel +44 (0)207 282 1050 • nina.enegren@citigatedr.co.uk