



ASM Microbe 2018: Nosopharm to present new first-in-class clinical candidate to tackle *Enterobacteriaceae* infections

NOSO-502 is on track to be the first novel antibiotic class for the *Enterobacteriaceae* infections to be introduced into the clinics for 40 years. First-In-Human (FIH) studies are expected to start in 2020

Lyon, France, June 8, 2018 – Nosopharm, a company dedicated to the research and development of new anti-infective drugs, announces that it has been selected to present its first-in-class clinical candidate, NOSO-502, at today's New Agents Discovery Summary Session at ASM Microbe 2018 (June 7-11, Atlanta, GA, USA).

NOSO-502 is the first clinical candidate of the novel antibiotic class called Odilhorhabdins (ODLs). It inhibits the bacterial ribosome with a new mechanism of action. NOSO-502 is intended primarily for the treatment of nosocomial infections caused by *Enterobacteriaceae*, including *polymyxin*- and *carbapenem-resistant Enterobacteriaceae* (CRE). No novel class of antibiotics against those pathogens has been introduced into clinics since the 1980s¹. *Enterobacteriaceae* are at the top of the WHO's list of priority pathogens² for the development of new antibiotics, classed as critical.

NOSO-502 has proven to be effective *in vivo* in several *Enterobacteriaceae* infection models, such as peritonitis/sepsis, urinary tract infection and respiratory tract infection. It has also demonstrated antibacterial activity *in vitro* against multi-drug resistant clinical isolates (KPC, NDM, and OXA among others). NOSO-502 therefore has significant potential for the treatment of serious nosocomial infections.

"We are honored to have been asked to present the promising results of our pre-clinical studies with our prime candidate, NOSO-502, at ASM Microbe. This selection highlights the fact that we are one of the very few biotech companies developing high potential first-in-class antibiotics and one of the most advanced to enter clinical trials," said Philippe Villain-Guillot co-founder and chief executive officer of Nosopharm. "There is an urgent need to introduce a new class of antibiotics, especially to address life-threatening CRE infections. We are excited that our novel antimicrobial agent class, ODLs, could bring a much-needed revolution in the field of antimicrobial resistance."

"The infectious disease community is excited by the discovery and development of new antimicrobial agents to treat drug-resistant infections," said Prof. Karen Bush, Antimicrobial Agents and Resistance (AAR) track leader of the steering committee of ASM Microbe 2018. "We are especially encouraged by reports of agents from novel classes not represented by our traditional antibiotics."

Nosopharm expects IND-enabling studies to start in 2019 and to launch first-in-human studies with NOSO-502 in 2020.

¹ http://www.who.int/medicines/areas/rational_use/antibacterial_agents_clinical_development/en/

² <https://www.cdc.gov/hai/organisms/cre/cre-patients.html>



Hospital pathogens with multiple antibiotic resistances are responsible for at least 380,000 infections and 25,000 directly related deaths in the European Union every year.³ The annual treatment and social costs have been estimated at some €1.5 billion (\$1.59bn). From a global perspective, antimicrobial resistance could kill up to ten million people every year by 2050⁴, which could cost up to €94 trillion (\$100tn).

Nosopharm will present a poster and an oral presentation today:

Oral presentation: 8:45am (EDT) - Session 048 - AAR Late-breakers, 'NOSO-502, a First-in-Class Antibacterial Compound Active Against Carbapenem-Resistant Enterobacteriaceae'⁵ by Philippe Villain-Guillot CEO at Nosopharm
A411 and Lounge and Learn 1, Building A, Level 4

Poster: 11:00am (EDT) - Session 012 - AAR Late-breakers, AAR LB20 'NOSO-502, A Novel Antibacterial Compound Active against Carbapenem-resistant-*Enterobacteriaceae*'⁶ by Maxime Gualtieri CSO at Nosopharm
Exhibit and Poster Hall, Building B, Halls B2-B5

About Nosopharm

Nosopharm is a biotechnology company specialized in the research and development of new antimicrobial molecules. Nosopharm discovered and developed NOSO-502, a first-in-class antibiotic for the treatment of multidrug-resistant hospital-acquired infections. It has developed a unique expertise in the discovery of natural bioactive products stemming from the *Xenorhabdus* and *Photorhabdus* microbial genera and in the medicinal chemistry of Odilorhabdins, the new class of antibiotics to which NOSO-502 belongs. Founded in 2009, Nosopharm is based in Lyon, France, and has a staff of eight. To date, the company has raised a total of €4.3M (\$5.2M) in private equity and received €3.8M (\$4.6M) in grants from Bpifrance, IMI, DGA, Region Languedoc-Roussillon and FEDER.

<http://www.nosopharm.com/en>

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³ http://www.ema.europa.eu/docs/en_GB/document_library/Report/2009/11/WC500008770.pdf

⁴ <http://www.who.int/mediacentre/factsheets/antibiotic-resistance/en/>

⁵ <http://www.abstractsonline.com/pp8/#!/4623/presentation/17060>

⁶ <http://www.abstractsonline.com/pp8/#!/4623/presentation/15277>