

The US Department of Defense and Deinove will present impactful R&D results during the coming ASM 2019

- L'USAMRIID (United States Army Medical Research Institute of Infectious Diseases) evaluated DNV3681 against Bacillus anthracis that triggers anthrax and Francisella tularensis that triggers tularemia or rabbit fever, both bacteria being classified in the "high priority" category of biothreat agents
- DNV3681 demonstrated a superior in vitro efficacy compared to Ciprofloxacin which is the product of reference when exposed to Bacillus anthracis
- These data will be presented during ASM 2019 which will take place from the 20th to the 24th of June 2019 in San Francisco
- DNV3681 is the active molecule of DNV3837, developed in parallel by DEINOVE as a potential treatment for gastrointestinal infections caused by Clostridium difficile

DEINOVE (Euronext Growth Paris: ALDEI), a French biotech company that uses a disruptive approach to develop innovative antibiotics and bio-based active ingredients for cosmetics and nutrition, announces that Maj. Steven Zumbrun, Ph.D. from the United States Army Medical Research Institute of Infectious Diseases (USAMRIID) will present, at the annual congress of the American Society of Microbiology, results of the DNV3681 *in vitro* evaluation against *Bacillus anthracis* and *Francisella tularensis*:

SESSION P442 - AAR08 - New Antimicrobial Agents (pre-Phase 2): Novel Inhibitors of Protein and DNA Synthesis — Poster AAR-789 - DNV3681 is a Novel Quinolonyl-Oxazolidinone Antibacterial with Potent Activity against Biothreat Pathogens. S. D. Zumbrun, S. A. Halasohoris, L. L. Miller, L. M. Pysz & G. Gaudriault

Bacillus anthracis and Francisella tularensis are classified as two of the most dangerous possible biological weapons. Such research could lead to another application for DNV3681, the active molecule of DNV3837 currently being tested by DEINOVE as a treatment targeting Clostridium difficile, the bacterium that causes gastrointestinal infections.

The standard of care against *Bacillus anthracis* and *Francisella tularensis* is currently Ciprofloxacin, a synthetic large spectrum antibiotic from the fluoroquinolones' family. Several pathogenic bacterial species have already developed a resistance against this family of antibiotics and the long treatment needed for Post-exposure Prophylaxis of Anthrax very often triggers a major intestinal microbiota imbalance leading to likely *Clostridioides difficile* infections. Therefore, there is an urgency to make efficient and validated alternatives available.

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The fact that the DNV3681 is precisely very active against both *Bacillus anthracis* and *Clostridioides difficile* makes it an ideal candidate to fulfill that need.

About USAMRIID:

USAMRIID is celebrating its 50th year of providing leading edge medical capabilities to deter and defend against current and emerging biological threat agents. The Institute is the only laboratory in the Department of Defense equipped to safely study highly hazardous viruses requiring maximum containment at Biosafety Level 4. Research conducted at USAMRIID leads to medical solutions—vaccines, drugs, diagnostics, and information—that benefit both military personnel and civilians. Established in 1969, the Institute plays a key role as the lead military medical research laboratory for the Defense Threat Reduction Agency's Joint Science and Technology Office for Chemical and Biological Defense. USAMRIID is a subordinate laboratory of the U.S. Army Medical Research and Materiel Command. For more information, visit www.usamriid.army.mil.

[The information contained in this press release does not necessarily reflect the position or the policy of the Government and no official endorsement should be inferred.]

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ABOUT DEINOVE

DEINOVE is a French biotechnology company, a leader in disruptive innovation, which aims to help meet the challenges of antibiotic resistance and the transition to a sustainable production model for the cosmetics and nutrition industries.

DEINOVE has developed a unique and comprehensive expertise in the field of rare bacteria that it can decipher, culture, and optimize to disclose unsuspected possibilities and induce them to produce biobased molecules with activities of interest on an industrial scale. To do so, DEINOVE has been building and documenting since its creation an unparalleled biodiversity bank that it exploits thanks to a unique technological platform in Europe.

DEINOVE is organized around two areas of expertise:

- ANTIBIOTICS, new-generation anti-infective agents: DEINOVE is preparing to enter a
 first antibiotic candidate, DNV3837, into Phase II. The Company is also pursuing the
 systematic exploration of biodiversity to supply its portfolio with new leads, drawing
 notably on partnerships with Naicons, bioMérieux, and Institut Pasteur (AGIR program
 supported by Bpifrance).
- **BIOACTIVES, Active ingredients of natural origin** with cosmetics as the first market and potential in nutrition and health: DEINOVE already markets a first innovative active ingredient, a second in partnership with Greentech, while two others are in development with Oléos (Hallstar Group). It also runs a program in animal nutrition with Avril Group.

Within the Euromedecine science park located in Montpellier, DEINOVE employs 62 employees, mainly researchers, engineers, and technicians, and has filed more than 310 patent applications internationally. The Company has been listed on EURONEXT GROWTH® since April 2010.

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