



**PRESS RELEASE**

## **AMOÉBA announces a major scientific advance on the formulation of its amoeba *Willaertia magna C2c Maky*, intended for plant protection.**

**Lyon (France), February 11<sup>th</sup>, 2019 - AMOÉBA (FR0011051598 - AMEBA)**, producer of a biological biocide capable of eliminating bacterial risk in water and human wounds, and a biocontrol product for plant protection, announces a major scientific advance in the formulation of its amoeba *Willaertia magna C2c Maky*.

The company has conducted laboratory and greenhouse tests to demonstrate the efficacy of its amoeba *Willaertia magna C2c Maky* against downy mildew, a pathogenic fungus of grapevine, using several amoeba formulations.

In particular, a dry formulation, in powder form, composed of lysed *Willaertia magna C2c Maky* amoebae, i.e. dead and in pieces, demonstrated a level of efficacy comparable to the reference chemical and the living amoeba (see Press Release dated 4 May 2018).

The active substance in the form of a powdered amoeba lysate constitutes a major scientific advance since it retains its effectiveness against mildew and provides many technical and regulatory advantages:

- A storage period of several months instead of a few weeks.
- A volume reduction of several m<sup>3</sup> of liquid to a few kilograms of powder.
- Shipment without special conditions of transport from our Chassieu plant to international destinations such as North America.
- The substance consisting of amoeba lysate eliminates any questioning on a hypothetical risk to human health of the living amoeba *Willaertia magna C2c Maky*. As a reminder, "a so-called 'Trojan horse' effect, with the amoeba acting as a reservoir for possible pathogenic bacteria" had led to the non-approval of the living amoeba as a biocidal active substance in Europe (see Press Releases of 26 April 2018 and 29 November, 2018).

The Company is continuing the research and development on the biocontrol application in plant protection based on this powdered amoeba lysate and is considering submitting applications for approval in Europe and the United States in the first quarter of 2020. Subject to approval of products containing this active substance by the competent authorities, Amoéba could see the first marketing authorisations for use against downy mildew in grapevines in the United States in 2022 and in Europe in 2025. Extensions of use (other diseases and/or other crops) may be requested and subject to approval by the competent authorities.

As a reminder, to date, the company is in the testing phase for biocidal and plant protection applications and does not market any products.

" Our internal research in association with external expert laboratories has enabled what I consider to be a major step forward in the world of biocontrol. Copper, for example in its copper sulphate form commonly known as Bordeaux mixture, the most widely used anti-mildew agent in Organic Agriculture, has just undergone significant restrictions on its use, including a sharp reduction in its authorised dose.



*We hope that our active substance will be authorised and can, once on the market, help our winegrowers and farmers to cope with these restrictions. Numerous field trials are planned from April in France to check whether the active substance is effective in real conditions. ", says Fabrice PLASSON.*



#### **About AMOEBA:**

Amoéba's ambition is to become a major player in the treatment of bacterial risk in the fields of water, healthcare and plant protection. Our biological solution is an alternative to chemical products widely used today. Amoéba is currently focusing on the market of industrial cooling towers estimated at €1.7Bn <sup>(1)</sup> on a global chemical biocide market for water treatment, evaluated at €21Bn <sup>(2)</sup> and on the biocontrol market for plant protection estimated globally at €1.6Bn <sup>(4)</sup>. In the future, the Company is looking at developing new applications such as chronic wound care, estimated at € 751 million <sup>(3)</sup> in the USA. Sales of associated products with healthcare, biocides and crop protection are subject to the Company being granted local regulatory market authorizations. Created in 2010, based in Chassieu (Lyon, France) with a subsidiary in Canada and in the United States, Amoéba is quoted on the compartment C of Euronext Paris. The Company is a member of the BPIfrance Excellence network and is eligible for the PEA-PME SME equity savings plan setup. More information on [www.amoeba-biocide.com](http://www.amoeba-biocide.com).

*(1): Amoéba data combined from sources: DRIRE 2013, Eurostat, ARHIA 2013*

*(2): Sources combined by Amoéba from water treaters, Freedonia, Eurostat et MarketsandMarkets*

*(3): BCC Research, "Markets for Advanced Wound Management Technologies," Wellesley, MA, 2017*

*(4): Biopesticides Worldwide Market 2013, CPL, Wallingford, UK*

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