PRESS RELEASE

ERYTECH adds a new product candidate to its tumor starvation development portfolio

- **ERYTECH encapsulates a new enzyme, methionine-γ-lyase (MGL), in red blood cells**
- **Further broadening of the application of its proprietary technology in oncology**

Lyon (France), April 9, 2014 – ERYTECH Pharma (Euronext Paris: FR0011471135 - ERYP), a French biopharmaceutical company that develops innovative treatments for acute leukemia and other oncology indications with unmet medical needs, announces the addition of a new product development candidate, ERY-MET, to the company's tumor starvation product pipeline.

Tumor cells, unlike normal cells, are described to be dependent on the external supply of certain amino acids due to their inability to synthesize them. The full or partial depletion of these amino acids from the circulation deprives these tumor cells from required nutrients and can induce tumor starvation. The enzymes that perform the degradation of these amino acids often have a short half-life and are frequently associated with high levels of side effects. Encapsulating them in red blood cells can extend their half-life and reduce their toxicity.

This principle has been demonstrated in clinical studies with GRASPA®/ERY-ASP[1], the company's lead product, currently in Phase III in Acute Lymphoblastic Leukemia (ALL). ERY-ASP consists of asparaginase encapsulated in red blood cells and acts on the systemic depletion of asparagine.

In parallel with the development of ERY-ASP, ERYTECH has over the past years actively investigated other therapeutic compounds targeting tumor starvation that benefit from encapsulation in red blood cells. The company is the beneficiary of a EUR 7 million French government funding to achieve this goal[2].

This has now resulted in the identification of a new product candidate, ERY-MET, consisting of Methionine-γ-lyase (MGL) encapsulated inside red blood cells. MGL breaks down the amino acid methionine, and has the potential to induce tumor starvation in multiple cancer indications by depletion of this amino acid. MGL in its natural form has a very short half-life and is highly dependent on a co-factor which is especially contained inside the red blood cells. With its proprietary encapsulation technology, ERYTECH has succeeded the encapsulation of MGL inside red cells with a good stability. The *in vivo* half-life of the encapsulated enzyme was extended to multiple days from a few hours for the free form.

Based on these promising preclinical results, the company will continue with the preclinical development and progress it to the stage of clinical testing. The industrial scale-up of the manufacturing will be initiated in the coming months to enable a first-in-man Phase I study in 2015. ERYTECH's manufacturing facility is fully equipped to produce ERY-MET. The product is protected by the company's core patents and a specific patent application.

"We are very motivated to develop this new and promising product encapsulating MGL and confirming the potential of our technology to encapsulate therapeutic compounds in red blood cells. The red blood cells are

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[1] ERY-ASP is the development name for ERYTECH's products based on the encapsulation of asparaginase in red blood cells. In Europe the product will be commercialized in the field of acute leukemia under the brand name GRASPA® brand name.

[2] In this program, co-funded by Bpifrance, Diaxonhit and INSERM U773 are partners to develop ex-vivo tumor models and diagnostics tools to identify responders and monitor tumor progression.

certainly the most suitable vehicle for MGL because this enzyme is highly dependent on a co-factor, a form of vitamin B6, which is especially contained inside the red blood cells", comments Dr Yann Godfrin, co-founder and Chief Scientific Officer of ERYTECH Pharma.

"This project enters well into our IPO strategy, which consists of creating a strategic value by pursuing the development of ERY-ASP in liquid and solid tumors, all in broadening the application scope of our proprietary technology and extending our product portfolio in oncology", adds Gil Beyen, Chairman and CEO of ERYTECH Pharma.

About ERYTECH and ERY-ASP/GRASPA®: www.erytech.com

Created in Lyon in 2004, ERYTECH is a French biopharmaceutical company providing new prospects for cancer patients, particularly those with acute leukemia and selected solid tumors.
Every year about 50,000 patients are diagnosed with Acute Lymphoblastic Leukemia (ALL) or Acute Myeloid Leukemia (AML), the two forms of acute leukemia. Today, for about 80% of these patients, mainly adults and relapsing patients, there is no adequate solution due to the toxicity of existing treatments. By encapsulating the asparaginase enzyme in red blood cells, ERYTECH has developed ERY-ASP/GRASPA®, an original and effective treatment that targets leukemia cells through "starvation" while significantly reducing the side effects for patients, and allowing all patients to be treated, even the most fragile ones, representing a market opportunity of more than EUR 1 billion. ERY-ASP/GRASPA® is currently completing Phase III clinical development in Acute Lymphoblastic Leukemia (ALL) and is in Phase IIb clinical trial in Acute Myeloid Leukemia (AML). The product also received FDA clearance to start clinical development in ALL in the USA. ERYTECH has concluded distribution partnership agreements for Europe with Orphan Europe (Recordati Group), and with TEVA for Israel.
The company is also developing other indications in solid tumors and certain orphan indications outside oncology. ERYTECH has its own GMP-approved and operational manufacturing site.

ERYTECH is listed on Euronext regulated market in Paris. (ISIN code: FR0011471135, ticker: ERYP) and is part of the CAC All Shares, CAC Healthcare, CAC Pharma & Bio, CAC Small, CAC Mid&Small and CAC All Tradable indexes.

Forward-looking information

This document may contain forward-looking statements and estimates with respect to the financial situation, the results of operations, the strategy, the project and to the anticipated future performance of ERYTECH and of the market in which it operates. Certain of these statements, forecasts and estimates can be recognized by the use of words such as, without limitation, "believes", "anticipates", "expects", "intends", "plans", "seeks", "estimates", "may", "will" and "continue" and similar expressions. They include all matters that are not historical facts. Such statements, forecasts and estimates are based on various assumptions and assessments of known and unknown risks, uncertainties and other factors, which were deemed reasonable when made but may or may not prove to be correct. Actual events are difficult to predict and may depend upon factors that are beyond the Company's control. Therefore, actual results, the financial condition, performance or achievements of ERYTECH, or industry results, may turn out to be materially different from any future results, performance or achievements expressed or implied by such statements, forecasts and estimates. Documents filed by ERYTECH Pharma with the French Autorité des Marchés Financiers (www.amf-france.org), also available on our website (www.erytech.com) describe such risks and uncertainties. Given these uncertainties, no representations are made as to the accuracy or fairness of such forward-looking statements, forecasts and estimates. Furthermore, forward-looking statements, forecasts and estimates only speak as of the date of the publication of this document. ERYTECH disclaims any obligation to update any such forward-looking statement, forecast or estimates to reflect any change in the Company's expectations with regard thereto, or any change in events, conditions or circumstances on which any such statement, forecast or estimate is based, except to the extent required by French law.

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