PRESS RELEASE

# ERYTECH Presents New Preclinical Anti-Tumor Data on erymethionase at AACR 2017

**Lyon (France), March 20, 2017– ERYTECH Pharma (Euronext Paris - ERYP), a French clinical-stage biopharmaceutical company developing innovative therapies for rare forms of cancer and orphan diseases based on its proprietary ERYCAPS platform, encapsulating therapeutic drug substances inside red blood cells, today announced the presentation of new anti-tumor data supporting the Company's preclinical product erymethionase (ERY-MET) at the upcoming American Association for Cancer Research (AACR) Annual Meeting, being held April 1 – 5, 2017 in Washington, D.C.**

Results from the preclinical study demonstrate that erymethionase, methionine gamma-lyase (MGL)-encapsulated in red blood cells using ERYTECH's proprietary encapsulation platform technology, represents a promising new treatment approach against a broad range of cancers that rely on methionine metabolism. The research will be presented by Dr. Vanessa Bourgeaux, Program Leader at ERYTECH, during a poster session at the conference.

Dr. Bourgeaux stated, *"Methionine dependence has emerged as a unique target for anti-cancer activity during the last two decades. While methionine gamma-lyase is a promising strategy for these cancers, its very short half-life in the body prohibited all attempts to develop MGL as cancer therapy. However, our work here shows that when encapsulated in red blood cells using our ERYCAPS technology, MGL is protected from degradation and overcomes the pharmacokinetic limitations resulting in increased half-life in vivo for effective potential use in a broad-range of methionine-dependent cancers."*

Gil Beyen, Chairman and CEO of ERYTECH, added, *"Erymethionase represents a novel product candidate in our tumor starvation arsenal. ERYTECH is progressively building its cancer metabolism platform with this second product candidate to complement eryaspase (GRASPA®), ERYTECH's lead product candidate. The posters presented at two immunotherapy medical meetings earlier this month and now promising data with erymethionase at AACR underscore ERYTECH's intention to develop the scope of products and applications for its technology platform."*

Methionine is an essential amino acid, which is necessary for all cells to grow and multiply. More specifically, fast-growing tumor cells exhibit very high requirements of methionine to proliferate. The enzyme methionine gamma-lyase (MGL) mediates tumor starvation via systemic lowering of methionine levels. MGL is an enzyme with a short half-life and is dependent on a co-factor, a Vitamin B6 derivative which is naturally present in red blood cells, to demonstrate enzymatic activity. The preclinical studies in mouse models of erymethionase aimed to investigate the protection of MGL against degradation and immune reactions through encapsulation in erythrocytes (red blood cells).

ERYTECH researchers demonstrated that encapsulation of MGL in red blood cells both strongly improved the half-life of the enzyme and provided active co-factor to increase MGL activity and therefore, tumor starvation. The half-life of MGL increased from less than 24 hours when free to more than 10 days when encapsulated in red blood cells, with no toxicity reported. The preclinical study showed that combining a single weekly intravenous injection of erymethionase with daily pyridoxine (PN) supplementation led to a sustained methionine depletion in the plasma, and an inhibition of tumor growth for 45 days following the fifth erymethionase dose of 85% in the glioblastoma mouse model, and of 72% in the gastric cancer mouse model. Repeated injections of ERY-MET were also effective against established tumors in the gastric cancer model leading to a complete tumor regression.

Full details of the AACR presentation follow:

Abstract # 2134 / Poster # 3: **Use of methionine gamma-lyase-loaded erythrocytes to induce effective methionine depletion of cancer therapy**

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| Presenter: | Dr. Vanessa Bourgeaux |
| Poster Session/Section: | PO.ET01.09 - New Targets 2/Section 6 |
| Date: | Monday, April 3 |
| Time: | 1:00 – 5:00 p.m. EDT |
| Location: | Convention Center, Halls A-C |

## About ERYTECH and eryaspase (GRASPA®): www.erytech.com

Founded in Lyon, France in 2004, ERYTECH is a clinical-stage biopharmaceutical company developing innovative therapies for rare forms of cancer and orphan diseases. Leveraging its proprietary ERYCAPS platform, which uses a novel technology to encapsulate therapeutic drug substances inside red blood cells, ERYTECH has developed a pipeline of product candidates targeting markets with high unmet medical needs. ERYTECH's initial focus is on the treatment of blood cancers, including acute lymphoblastic leukemia (ALL) and acute myeloid leukemia (AML), by depriving tumors of nutrients necessary for their survival. ERYTECH plans to pursue regulatory approvals for its lead product candidate, eryaspase, also known as ERY-ASP or under the trade name GRASPA®, having achieved positive efficacy and safety results from its completed Phase 2/3 pivotal clinical trial in Europe in children and adults with relapsed or refractory ALL. ERYTECH also has an ongoing Phase 1 clinical trial of eryaspase in the United States in adults with newly diagnosed ALL, and a Phase 2b clinical trial in Europe in elderly patients with newly diagnosed AML, each in combination with chemotherapy. ERYTECH believes that eryaspase also has the potential as a treatment approach in solid tumors and is conducting a Phase 2 clinical trial in Europe in patients with metastatic pancreatic cancer.

Eryaspase consists of an enzyme, L-asparaginase, encapsulated inside donor-derived red blood cells. L-asparaginase depletes asparagine, a naturally occurring amino acid essential for the survival and proliferation of cancer cells, from circulating blood plasma. ERYTECH produces eryaspase at its own GMP-approved and operational manufacturing site in Lyon (France), and at a site for clinical production in Philadelphia (USA). ERYTECH has entered into licensing and distribution partnership agreements for eryaspase for ALL and AML in Europe with Orphan Europe (Recordati Group), and for ALL in Israel with TEVA, which will market the product under the GRASPA® brand name. The European Medicines Agency (EMA) and the U.S. Food and Drug Administration (FDA) have granted orphan drug designations for eryaspase for the treatment of ALL, AML and pancreatic cancer.

In addition to eryaspase, ERYTECH is developing two other product candidates that focus on using encapsulated enzymes to induce tumor starvation. The company is also exploring the use of its ERYCAPS platform for developing cancer immunotherapies and enzyme replacement therapies.

*ERYTECH is listed on Euronext regulated market in Paris (ISIN code: FR0011471135, ticker: ERYP) and is part of the CAC Healthcare, CAC Pharma & Bio, CAC Mid & Small, CAC All Tradable, EnterNext PEA-PME 150 and Next Biotech indexes. ERYTECH is also listed in the U.S. under an ADR level 1 program (OTC, ticker EYRYY).*

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## Forward-looking information

This press release contains forward-looking statements, forecasts and estimates with respect to the clinical development plans, business and regulatory strategy, and 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 ERYTECH's control. There can be no guarantees with respect to pipeline product candidates that the candidates will receive the necessary regulatory approvals or that they will prove to be commercially successful. Therefore, actual results may turn out to be materially different from the anticipated 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 ERYTECH’s 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 this press release. Readers are cautioned not to place undue reliance on any of these forward-looking statements. ERYTECH disclaims any obligation to update any such forward-looking statement, forecast or estimates to reflect any change in ERYTECH’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 law.