PRESS RELEASE

ERYTECH Provides Business and Financial Highlights for First Quarter 2016

Conference call and webcast scheduled for
Wednesday, May 11th at 15:00 CET/9:00 EDT

- **European Medicines Agency (EMA) review of Marketing Authorization Application (MAA) for GRASPA for the treatment of acute lymphoblastic leukemia (ALL) is ongoing**
- **Solid cash position of €40.6 million at quarter-end**

Lyon (France), May 10, 2016 – ERYTECH Pharma (Euronext Paris: ERYP), the French biopharmaceutical company developing 'tumor starvation' treatments for acute leukemia and other oncology indications with unmet medical needs, today provided a business update and reported financial results for its first quarter ended March 31, 2016.

First Quarter and Recent Business Highlights

- The Company's MAA for GRASPA to treat patients with relapsed and refractory ALL, submitted in September 2015, is currently under review by the EMA's Commission for Human Medicinal Products (CHMP). In January 2016, ERYTECH received the Day 120 List of Outstanding Issues (LOI) from CHMP. The Company has requested and has received a three-month extension to answer the questions. ERYTECH currently expects to be in position to receive an opinion from the CHMP regarding the approvability of GRASPA towards the end of 2016/early 2017.

- The original enrollment objective of 90 patients in the Company's pancreatic cancer Phase 2 study has been reached. ERYTECH has elected to continue patient recruitment with a goal of increasing the statistical power of the study and better evaluating the treatment in subgroups. Enrollment is on track for reporting of primary data by end of 2016.

- More than 90% of patients are enrolled in the Phase 2 acute myeloid leukemia (AML) study to date. Enrollment is on track for reporting of primary data mid-2017.

- Received Notice of Allowance from U.S. Patent and Trademark Office (USPTO) for patent covering utilization of ERYCAPS technology platform in development of cancer immunotherapy products.

- Findings from two preclinical studies were presented at the American Association for Cancer Research (AACR) 2016 Annual Meeting. The first poster discussed ERY-ADI, arginine-deiminase loaded in erythrocytes, one of ERYTECH's new product candidates for L-arginine deprivation therapy in cancers. A second poster presented the Company's immunotherapy platform, using red blood cells as a tumor antigen delivery system to target antigen-presenting cells in the spleen.

First Quarter Financial Highlights

ERYTECH ended the first quarter of 2016 with a cash balance of €40.6 million, compared to €45.6 million at the end of 2015. The net use of cash for operating and investing activities amounted to €5.1 million for the quarter, compared to €3.0 million during the first quarter of last year. The cash utilization in the first quarter of 2016 was in line with the Company's expectations and consistent with its strategy, which, in 2016, remains focused on the clinical development of its innovative treatments for acute leukemia and other oncology indications in Europe and the United States.

Gil Beyen, Chairman and Chief Executive Officer of ERYTECH, commented *"During the first quarter, we made continued progress in the ongoing clinical development of GRASPA in the treatment of ALL, AML and pancreatic cancer, while further advancing our preclinical pipeline. We believe that 2016 will be a significant year for ERYTECH, as we progress toward our first European product approval, expect results of our Phase 2 study of GRASPA in pancreatic cancer and initiate new clinical trials and preclinical studies of product candidates utilizing our proprietary ERYCAPS technology. We are well positioned to execute on our development strategy."*

Next financial updates:

- Financial highlights for the 2nd quarter of 2016: September 6, 2016 (after market close), followed by a conference call and webcast on September 7, 2016 (15:00 CET/9:00 ET)

Upcoming participations at investor conferences:

- French Financial Analyst Association (SFAF) Bio Day, May 17, Paris
- France Biotech Life Sciences Day, June 6, San Francisco
- BIO 2016, June 6-9, San Francisco
- Jefferies Healthcare Conference, June 7-10, New York City

As a reminder, ERYTECH management will hold a conference call and webcast on Wednesday, May 11, 2016 at 15:00 CET / 9:00 EDT to review the Q1 2016 operational and financial highlights. Gil Beyen, Chairman and CEO, Eric Soyer, CFO and COO, and Iman El-Hariry, CMO, will deliver a brief presentation, followed by a Q&A session.

Investors and analysts wishing to participate can access the call via the following teleconferencing numbers:

USA: +1 877-887-4163

United Kingdom: +44 2030432440

Switzerland: +41 225809022

Germany: +49 69222229031

France: +33 172001510

Belgium: +32 24029640

Sweden: +46 850334664

Finland : +358 942599700

Netherlands: +31 107138194

Confirmation Code: **97907300#**

A live webcast of the call will be available online via the following link:
https://www.anywhereconference.com/?UserAudioMode=DATA&Name=&Conference=135301147&PIN=97907300

Following the live webcast, a telephonic replay will be available for 90 days. To listen to the replay, please dial:

USA: +1-877-642-3018

United Kingdom: +44 20 33 79 94 60

France: +33 1 72 00 15 00

Confirmation Code: **301147#**

Additionally, an archive of the webcast will be available on the "Webcast" section of the Company's investor relations site at www.erytech.com.

About ERYTECH and ERY-ASP (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 has recently filed for European Marketing Authorization for its lead product candidate, ERY-ASP, also known under the trade name GRASPA®, following 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 ERY-ASP 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.

ERY-ASP 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.

Every year over 50,000 patients in Europe and the United States are diagnosed with ALL or AML. For about 80% of these patients, mainly adults and relapsing patients, current forms of L-asparaginase cannot be used due to their toxicity or as a result of allergic reactions. ERYTECH believes that the safety and efficacy profile of ERY-ASP/GRASPA®, as observed in its Phase 2/3 pivotal clinical trial, offers an attractive alternative option for the treatment of leukemia patients.

ERYTECH believes that ERY-ASP 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. In addition to its current product candidates that focus on using encapsulated enzymes to induce tumor starvation, ERYTECH is exploring the use of its platform for developing cancer vaccines and enzyme replacement therapies.

The EMA and the U.S. Food and Drug Administration (FDA) have granted orphan drug designations for ERY-ASP/GRASPA for the treatment of ALL, AML and pancreatic cancer. ERYTECH produces ERY-ASP 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 ERY-ASP 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.

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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ERYP LISTED EURONEXT

OTCMarkets Ticker : EYRYY

Forward-looking information

This document may contain forward-looking statements and estimates with respect to the financial position, results of operations, business strategy, plans, objectives 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 the publication of this document. 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.