PRESS RELEASE

ERYTECH Presents Findings at European Red Cell Research Society Meeting

Lyon (France) and Cambridge, Mass. (U.S.), March 11, 2019 – ERYTECH Pharma (Euronext Paris: ERYP - Nasdaq: ERYP), a clinical-stage biopharmaceutical company developing innovative therapies by encapsulating drug substances inside red blood cells, announced that an oral presentation entitled "Comprehensive proteomic profiling of erythrocytes following hypotonic dialysis-based drug encapsulation process" will be presented today at the 22nd meeting of the European Red Cell Research Society (ERCS) in Ascona, Switzerland. A poster highlighting the results of this work will also be presented at the ERCS Meeting and will be available on the Company's website at www.erytech.com after March 11, 2019.

The lead investigational therapeutic produced using the Company's ERYCAPS® encapsulation process, eryaspase, consisting of the enzyme L-asparaginase encapsulated inside donor-derived red blood cells, is currently being evaluated in the Phase 3 TRYbeCA-1 trial in metastatic pancreatic cancer[1].

In an earlier 141 patient randomized Phase 2b trial of eryaspase in combination with chemotherapy for the treatment of second-line metastatic pancreatic cancer, significant improvements in overall survival and progression free survival were observed versus chemotherapy alone with no apparent increase in toxicity[2].

The erythrocyte proteomic profiling study being presented at the meeting was performed with the participation of the 3P5 Proteomic Platform (at the Paris-Descartes University, France) specialized in high-performance mass spectrometry protein identification and microanalysis. With the exception of L-asparaginase, profiling analysis revealed no significant difference in the proteomic landscape when comparing packed RBCs, ERYCAPS®-processed RBCs without enzyme, and ERYCAPS®-processed RBCs encapsulating L-asparaginase.

These results confirm the notion that the ERYCAPS® process does not significantly alter the properties of RBCs and that apart from the encapsulated drug substance, RBC-based therapeutics produced using this process have similar characteristics to that of unprocessed packed RBCs.

Dr. Patrick Mayeux, an expert on RBCs proteome at the Cochin Institute, Paris, France and Scientific Director of the 3P5 Proteomic Platform, recently commented: *"The constant advancement of proteomics technologies now allows a comprehensive analysis of the whole proteome of RBCs."*

ERYTECH plans to advance candidates using the ERYCAPS® platform and to explore the field of RBC-based therapeutics, building on these proteomic results and future findings regarding RBC biology.

About ERYTECH: www.erytech.com

ERYTECH is a clinical-stage biopharmaceutical company developing innovative red blood cell-based therapeutics for cancer and orphan diseases. Leveraging its proprietary ERYCAPS platform, a novel technology to encapsulate drug substances inside red blood cells, ERYTECH is developing a pipeline of product candidates to address markets with high unmet medical needs.

[1] *J Clin Oncol 37, 2019 (suppl 4; abstr TPS471)*

[2] *Hammel et al, Annals of Oncology (2017) 28 (suppl_5): v209-v268*

ERYTECH's primary focus is on the development of product candidates that target the altered metabolism of cancer cells by depriving them of amino acids necessary for their growth and survival. The Company's lead product candidate, eryaspase, which consists of L-asparaginase encapsulated inside donor-derived red blood cells, targets the cancer cell's altered asparagine and glutamine metabolism. Eryaspase is in Phase 3 clinical development for the treatment of second-line pancreatic cancer and in preparations to enter Phase 2 clinical development for the treatment of triple-negative breast cancer. ERYTECH's next product candidate erymethionase, which consists of methionine-gamma-lyase encapsulated in red blood cells to target methionine-dependent cancers, has demonstrated promising preclinical results and is in preparations to enter Phase 1 clinical development.

ERYTECH is also exploring the use of its ERYCAPS platform for developing cancer immunotherapies (ERYMMUNE) and enzyme therapies (ERYZYME).

ERYTECH produces product candidates at its GMP-approved manufacturing site in Lyon, France, and at the American Red Cross in Philadelphia, USA. A large-scale GMP manufacturing facility is under construction in New Jersey, USA.

ERYTECH is listed on the Nasdaq Global Select Market in the United States (ticker: ERYP) and on the Euronext regulated market in Paris (ISIN code: FR0011471135, ticker: ERYP). ERYTECH is part of the CAC Healthcare, CAC Pharma & Bio, CAC Mid & Small, CAC All Tradable, EnterNext PEA-PME 150 and Next Biotech indexes.

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Forward-looking information

This press release contains forward-looking statements, forecasts and estimates with respect to the clinical results from and the development plans of eryaspase, business and regulatory strategy, expansion of manufacturing capacity 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. All statements contained in this press release other than statements of historical facts are forward-looking statements, including, without limitation, statements regarding the potential of ERYTECH's product pipeline, its clinical development and regulatory plans for eryaspase, the timing of ERYTECH's clinical studies and trials and announcements of data from those studies and trials, and the contents and timing of decisions by the FDA and EMA regarding ERYTECH's product candidates. 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. Further description of these risks, uncertainties and other risks can be found in the Company's regulatory filings with the French Autorité des Marchés Financiers (AMF), the Company's Securities and Exchange Commission (SEC) filings and reports, including in the Company's 2017 Document de Référence filed with the AMF in April 2018 and in the Company's Annual Report on Form 20-F filed with the SEC on April 24, 2018 and future filings and reports by the Company. 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.