PRESS RELEASE

ERYTECH Strengthens Executive Team with the Appointment of Alex Dusek as VP of Commercial Strategy

Lyon (France), May 14, 2018 – ERYTECH Pharma (Euronext: ERYP - Nasdaq: ERYP), a clinical-stage biopharmaceutical company developing innovative therapies by encapsulating therapeutic drug substances inside red blood cells, announced that it has appointed Alex Dusek as its Vice President Commercial Strategy and member of the executive team. Mr. Dusek brings 25 years of experience in market access, product marketing and sales across small biotech start-ups and multi-national pharmaceutical companies.

"I am pleased to welcome Alex to the ERYTECH team at this exciting juncture," said Gil Beyen, Chairman and CEO of ERYTECH. *"His extensive experience in market access and commercial product launches will provide an invaluable foundation for commercial product preparedness and lay the groundwork for commercial success of our late-stage product candidates worldwide, with initial focus on the United States."*

Prior to joining ERYTECH, Mr. Dusek served as the Vice President of Commercial Strategy at Argos Therapeutics, a publicly traded immuno-oncology company, where his work included pre-launch planning for the commercial distribution of an advanced cell therapy product. Before Argos, Mr. Dusek led the global brand strategy at Bayer HealthCare Pharmaceuticals for the launch of a first-in-class, rare-disease agent, Adempas (riociguat). He was the first marketing employee at United Therapeutics hired to build the marketing infrastructure and grow the pulmonary hypertension franchise. Mr. Dusek earned a B.A. in Linguistics from the College of William and Mary, completed a post-baccalaureate pre-medical program at Columbia University, and received his M.B.A from the University of North Carolina, Kenan-Flagler Business School.

"ERYTECH is the leader in red blood cell-based cancer therapeutics," stated Mr. Dusek. *"I'm excited to join a company with advanced clinical programs and a platform that offers the potential promise to treat patients suffering from many different serious diseases. I look forward to utilizing my broad product launch experience and assisting the team in the transformation of ERYTECH from a development company to a commercially successful operation."*

Mr. Dusek will be based in the United States, joining ERYTECH's growing team in Cambridge, Massachusetts.

About ERYTECH: 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 development of products that target the altered amino acid metabolism of cancer cells, depriving them of nutrients necessary for their survival.

The Company's lead product, eryaspase, also known under the trade name GRASPA®, 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. L-asparaginase has been a standard component of multi-agent chemotherapy for the treatment of pediatric acute lymphoblastic leukemia (ALL), but side effects limit treatment compliance, especially in adults and patients with weak performance status.

Eryaspase demonstrated positive efficacy and safety results in various clinical trials in ALL, including in a Phase 2 study in patients over 55 years of age and in a Phase 2/3 trial in relapsed or refractory ALL patients, as well as in pancreatic cancer, where it achieved positive results in a Phase 2b trial of second-line

treatment of patients with metastatic pancreatic cancer. ERYTECH is preparing for the launch of a pivotal Phase 3 clinical trial in second line pancreatic cancer and Phase 2 trials in first line pancreatic cancer and triple-negative breast cancer.

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 erymethionase, methionine-γ-lyase encapsulated in red blood cells, to target cancer cells' amino acid metabolism and induce tumor starvation. ERYTECH is also exploring the use of its ERYCAPS platform for developing cancer immunotherapies (ERYMMUNE) and enzyme replacement therapies (ERYZYME).

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. These statements, forecasts and estimates may be identified by the use of words such as "anticipate," "expect," "will," "believe," "continue," "enable" and other similar terms and phrases. 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 of eryaspase. 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.