

## *Pharming announces publication of RUCONEST® prophylactic data in The Lancet*

**Leiden, The Netherlands, 25 July 2017:** Pharming Group N.V. (“Pharming” or “the Company”) (Euronext Amsterdam: PHARM) today announced *The Lancet* has published data from a Phase II, double-blind, placebo-controlled, randomized clinical trial (NCT02247739) evaluating the efficacy and safety of RUCONEST® (C1 esterase inhibitor [recombinant]) for the prevention of hereditary angioedema (HAE) attacks.

As previously reported, in a study with 32 patients RUCONEST® 50 IU/kg (max 4200 IU) demonstrated a statistically significant and clinically relevant reduction in attack frequency for both the twice-weekly and once-weekly treatment regimens when compared to placebo and was generally safe and well-tolerated in the study.

**Lead-author and co-principal investigator, Marc Riedl, MD, Professor of Medicine and Clinical Director at the US HAEA Angioedema Center at The University of California San Diego, commented:** “Patients with frequent HAE attacks, such as those enrolled in this study, are severely affected and have limited safe and effective choices to control their disease. The findings from this positive study emphasize the unique attributes of recombinant C1INH, and support the potential prophylactic benefits of the medication.”

**Dr. Bruno Giannetti, MD, Chief Operations Officer of Pharming, added:** “We are pleased to see these important results published in a leading peer-reviewed journal. We wish to thank the patients and researchers involved in this study, and we look forward to continuing our work with the HAE community to improve treatment options.”

RUCONEST® is a recombinant C1 esterase inhibitor (C1-INH) indicated for the treatment of acute attacks in adult and adolescent patients with HAE. The product was granted Food and Drug Administration approval in this indication on 17 July 2014. RUCONEST® addresses the cause of HAE attacks by increasing C1-INH in the plasma to normal levels and by stopping the production of kallikrein, an enzyme that activates bradykinin and causes blood vessels to leak.

The complete publication can be found at:

[http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(17\)31963-3/fulltext?elsca1=tlxpr](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(17)31963-3/fulltext?elsca1=tlxpr)

## About HAE

Hereditary Angioedema (HAE) is a rare genetic disorder. The condition is caused by a deficiency of the C1 esterase inhibitor protein, which is normally present in blood and helps control inflammation (swelling) and parts of the immune system. Because defective C1-Inhibitor does not adequately perform its regulatory function, a biochemical imbalance can occur and produce unwanted peptides that induce the capillaries to release fluids into surrounding tissue, thereby causing swelling or edema.

HAE is characterized by spontaneous and recurrent episodes of swelling (edema attacks) of the skin in different parts of the body, as well as in the airways and internal organs. Edema of the skin usually affects the extremities, the face, and the genitals. Patients suffering from this kind of edema often withdraw from their social lives because of the disfiguration, discomfort and pain these symptoms may cause.

Edema of the throat, nose or tongue is particularly dangerous and potentially life-threatening and can lead to obstruction of the airway passages. Although there is currently no known cure for HAE, it is possible to prevent and treat the symptoms associated with angioedema attacks. HAE affects about 1 in 10,000 to 1 in 50,000 people worldwide.

## About Ruconest

### US INDICATION

RUCONEST® (C1 esterase inhibitor [recombinant]) is indicated for the treatment of acute attacks in adult and adolescent patients with hereditary angioedema (HAE). Effectiveness in clinical studies was not established in HAE patients with laryngeal attacks.

### IMPORTANT SAFETY INFORMATION

- RUCONEST® (C1 esterase inhibitor [recombinant]) is contraindicated in:
  - Patients with a history of allergy to rabbits or rabbit-derived products.
  - Patients with a history of life-threatening immediate hypersensitivity reactions to C1 esterase inhibitor preparations, including anaphylaxis.
- **Hypersensitivity:** Severe hypersensitivity reactions may occur. Should symptoms occur, discontinue RUCONEST and administer appropriate treatment. Because hypersensitivity reactions may have symptoms similar to HAE attacks, treatment methods should be carefully considered.
- **Thromboembolic Events:** Serious arterial and venous thromboembolic (TE) events have been reported at the recommended dose of plasma-derived C1 esterase inhibitor products in patients with risk factors. Risk factors may include the presence of an indwelling venous catheter/access device, prior history of thrombosis, underlying atherosclerosis, use of oral contraceptives or certain androgens, morbid obesity, and immobility. Monitor patients with known risk factors for TE events during and after RUCONEST administration.
- **Intravenous Use:** RUCONEST is for intravenous use after reconstitution only. No more than 2 doses should be administered within a 24-hour period.
- **Pregnancy and Nursing:** RUCONEST has not been studied in pregnant women; therefore, it should only be used during pregnancy if clearly needed. Advise patients to notify their physician if they are breastfeeding or plan to breastfeed.

- **Adverse reactions:** The serious adverse reaction in clinical studies of RUCONEST was anaphylaxis.
- **Common adverse reactions:** The most common adverse reactions (incidence  $\geq 2\%$ ) were headache, nausea, and diarrhea.

Please see Full Prescribing Information for RUCONEST<sup>®</sup> as applicable for various jurisdictions:  
[FDA: RUCONEST<sup>®</sup><sup>1</sup>](#) / [EMA: RUCONEST<sup>®</sup><sup>2</sup>](#)

## About Pharming Group N.V.

Pharming is a specialty pharmaceutical company developing innovative products for the safe, effective treatment of rare diseases and unmet medical needs. Pharming's lead product, RUCONEST<sup>®</sup> (conestat alfa) is a recombinant human C1 esterase inhibitor approved for the treatment of acute Hereditary Angioedema ("HAE") attacks in patients in Europe, the US, Israel and South Korea. The product is available on a named-patient basis in other territories where it has not yet obtained marketing authorization.

RUCONEST<sup>®</sup> is commercialized by Pharming in Algeria, Andorra, Austria, Bahrain, Belgium, France, Germany, Ireland, Jordan, Kuwait, Lebanon, Luxembourg, Morocco, the Netherlands, Oman, Portugal, Qatar, Syria, Spain, Switzerland, Tunisia, the United Arab Emirates, the United Kingdom, the United States of America and Yemen.

RUCONEST<sup>®</sup> is distributed by Swedish Orphan Biovitrum AB (publ) (SS: SOBI) in the other EU countries, and in Azerbaijan, Belarus, Georgia, Iceland, Kazakhstan, Liechtenstein, Norway, Russia, Serbia and Ukraine.

RUCONEST<sup>®</sup> is distributed in Argentina, Colombia, Costa Rica, the Dominican Republic, Panama, and Venezuela by Cytobiotech, in South Korea by HyupJin Corporation and in Israel by Megapharm.

RUCONEST<sup>®</sup> is also being investigated in a Phase II clinical trial for the treatment of HAE in young children (2-13 years of age) and evaluated for various additional follow-on indications.

Pharming's technology platform includes a unique, GMP-compliant, validated process for the production of pure recombinant human proteins that has proven capable of producing industrial quantities of high quality recombinant human proteins in a more economical and less immunogenetic way compared with current cell-line based methods. Leads for enzyme replacement therapy ("ERT") for Pompé and Fabry's diseases are being optimized at present, with additional programs not involving ERT also being explored at an early stage at present.

Pharming has a long-term partnership with the China State Institute of Pharmaceutical Industry ("CSIPI"), a Sinopharm company, for joint global development of new products, starting with recombinant human Factor VIII for the treatment of Haemophilia A. Pre-clinical development and

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<sup>1</sup><https://www.fda.gov/downloads/BiologicsBloodVaccines/BloodBloodProducts/ApprovedProducts/LicensedProductsBLAs/FractonatedPlasmaProducts/UCM405634.pdf>

<sup>2</sup>[http://www.ema.europa.eu/docs/en\\_GB/document\\_library/EPAR\\_-\\_Product\\_Information/human/001223/WC500098542.pdf](http://www.ema.europa.eu/docs/en_GB/document_library/EPAR_-_Product_Information/human/001223/WC500098542.pdf)

manufacturing will take place to global standards at CSIPI and are funded by CSIPI. Clinical development will be shared between the partners with each partner taking the costs for their territories under the partnership.

Pharming has declared that the Netherlands is its “Home Member State” pursuant to the amended article 5:25a paragraph 2 of the Dutch Financial Supervision Act.

Additional information is available on the Pharming website: [www.pharming.com](http://www.pharming.com)

## Forward-looking Statements

*This press release of Pharming Group N.V. and its subsidiaries (“Pharming”, the “Company” or the “Group”) may contain forward-looking statements including without limitation those regarding Pharming’s financial projections, market expectations, developments, partnerships, plans, strategies and capital expenditures.*

*The Company cautions that such forward-looking statements may involve certain risks and uncertainties, and actual results may differ. Risks and uncertainties include without limitation the effect of competitive, political and economic factors, legal claims, the Company’s ability to protect intellectual property, fluctuations in exchange and interest rates, changes in taxation laws or rates, changes in legislation or accountancy practices and the Company’s ability to identify, develop and successfully commercialize new products, markets or technologies.*

*As a result, the Company’s actual performance, position and financial results and statements may differ materially from the plans, goals and expectations set forth in such forward-looking statements. The Company assumes no obligation to update any forward-looking statements or information, which should be taken as of their respective dates of issue, unless required by laws or regulations.*

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