



# Kiadis announces new data validating and enhancing its PM21 K-NK-cell platform presented today at the ASGCT virtual annual meeting

- *The first poster presentation (abstract #427) demonstrates similarity between K-NK cells produced with FC21 and PM21*
- *The second poster presentation (abstract #765) shows preclinical data with enhanced K-NK cell production and functionality using PM21.Fc*

**Amsterdam, The Netherlands, May 12, 2020 – Kiadis Pharma N.V. (“Kiadis” or the “Company”)** (Euronext Amsterdam and Brussels: KDS), a clinical stage biopharmaceutical company, today announces that new data related to its K-NK cell therapy platform is being presented today at the American Society of Gene & Cell Therapy (ASGCT) Virtual Meeting. The first set of data (abstract #427) demonstrates similarity between K-NK cells produced using Kiadis’ feeder cell technology (FC21) and K-NK cells produced using Kiadis’ membrane particle technology (PM21). The second set of data (abstract #765) relate to an enhanced K-NK cell production platform called PM21.Fc. The data in the second poster show that K-NK cell production using feeder cells or particles with an added Fc domain not only increases K-NK cell expansion, but also improves cytotoxicity and antibody-dependent cell-mediated cytotoxicity (ADCC) toward tumor targets thus providing further enhanced combination therapy opportunities with antibodies.

## **Abstract #427: Bridging NK cell expansion methods towards a feeder-cell free scalable GMP production of hyperfunctional NK cells**

Kiadis’ FC21 platform uses K562 feeder cells that express membrane bound IL-21 and 41BB ligand. The PM21 platform consists of the membrane particles of FC21, that retain the stimulatory properties of the feeder cells, without the need to use intact tumor cells. Kiadis’ process allows K-NK cells to be expanded with PM21 in an industrial GMP compliant process to enable high dose, low cost, and scalable production without the risk of residual tumor cells in the final product.

The data presented compare lab scale and industrial scale K-NK cells generated with FC21 and PM21 on expansion yield, cytotoxicity, cytokine production (IFN $\gamma$  and TNF $\alpha$ ) and expression of key receptors. Each of these were found to be similar for K-NK cells produced with PM21 at lab scale and industrial scale as compared with K-NK cells produced at lab scale with FC21. K-NK cells produced at industrial scale with PM21 showed further improved expansion rates upon implementation of optimized process conditions. NK-cells were tested with comparable characterization assays.

The bridging data presented today supported the recent U.S. Food and Drug Administration’s approval of Kiadis’ investigational new drug application, enabling the Company to proceed

directly into a Phase 2 study (called the NK-REALM study) of K-NK002 as an adjunctive therapy to the haploidentical HSCT standard of care with the goal of reducing relapse rates. This Phase 2 study will be the first human trial using drug produced with Kiadis' PM21 technology.

Arthur Lahr, CEO of Kiadis, commented, "Our promising proof-of-concept data in 45 patients has been generated with K-NK cells produced with FC21. The data in abstract #427 presented today at ASGCT demonstrate the similarity between K-NK cells produced with FC21 and PM21 at lab scale and from manufacturing runs from our industrial scale GMP production process and thus provide a bridge from our historical clinical data. We look forward to initiating the recently approved Phase 2 NK-REALM study and treating the first patients with K-NK cells industrially produced with PM21."

#### **Abstract #765: NK cell Expansion and Phenotype Shaping using CD16-targeted feeder cells**

In addition to Abstract #427, Kiadis is also presenting abstract #765 with preclinical data on a further enhanced K-NK cell production platform called PM21.Fc. in a poster at ASGCT. PM21.Fc further enhances production and functionality of K-NK cells using feeder cells or particles with an added Fc domain (PM21.Fc). The researchers evaluated the use of PM21.Fc expanded K-NK cells in combination with the monoclonal antibodies Cetuximab for lung cancer and Trastuzumab for ovarian cancer.

K-NK cells expanded with PM21.Fc secreted significantly higher amount of TNF $\alpha$  and had greater cytotoxicity and higher antibody-dependent cell-mediated cytotoxicity (ADCC) than K-NK cells expanded with PM21, both standalone and in combination with Cetuximab. Researchers also found that K-NK cells expanded with FC21.Fc proliferate better in animal models than NK cells expanded without the added Fc domain, with or without Trastuzumab. Additionally, the enhanced proliferation of K-NK cells was accompanied by increased cytotoxicity upon tumor engagement.

Arthur Lahr continued, "The data in abstract #765 provide promising further evolution of our K-NK platform and shows that use of PM21.Fc not only enhances the K-NK cell expansion, but also increases cytotoxicity and ADCC toward tumor targets, through further upregulation of CD16 on K-NK cells. These results support further enhanced potential of combining K-NK cells with monoclonal antibodies as a cancer therapeutic."

Both posters are available at [www.kiadis.com](http://www.kiadis.com).

#### **About Kiadis Pharma's K-NK-Cell Therapies**

Kiadis Pharma's K-NK platform is designed to deliver potent NK cells to help patients, without the need for genetic engineering. Kiadis' programs consist of off-the-shelf and haploidentical donor NK-cell therapy products for the treatment of liquid and solid tumors as adjunctive and standalone therapies.

The Company's PM21 particle technology enables improved ex vivo expansion and activation of cytotoxic NK cells supporting multiple high-dose infusions. Kiadis' proprietary off-the-shelf NK-cell platform is based on NK cells from unique universal donors and can make NK-cell therapy product rapidly and economically available for a broad patient population across a wide range of indications.

Kiadis is developing K-NK002 as an adjunctive immunotherapeutic on top of HSCT, and K-NK003 for the treatment of relapse/refractory acute myeloid leukemia. In addition, Kiadis has pre-clinical programs evaluating NK-cell therapy for the treatment of solid tumors.

#### **About Kiadis Pharma**

Founded in 1997, Kiadis Pharma is building a fully integrated biopharmaceutical company committed to developing innovative therapies for patients with life-threatening diseases. With headquarters in Amsterdam, the Netherlands, and activities across the United States, Kiadis is

reimagining medicine by leveraging the natural strengths of humanity and our collective immune system to source the best cells for life.

Kiadis is listed on the regulated market of Euronext Amsterdam and Euronext Brussels since July 2, 2015, under the symbol KDS. Learn more at [www.kiadis.com](http://www.kiadis.com).

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**Forward Looking Statements**

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