Kiadis Pharma provides update on second dose trial (CR-AIR-008) with ATIR101™
~ Trial continues according to protocol with one dose ~

Amsterdam, The Netherlands, December 21, 2016, – Kiadis Pharma N.V. **("Kiadis Pharma" or the "Company") (Euronext Amsterdam and Brussels: KDS)**, a clinical stage biopharmaceutical company developing innovative T-cell immunotherapy treatments for blood cancers and inherited blood disorders, today announces an update on the second dose Phase II trial with ATIR101™ (CR-AIR-008). The Company will continue its CR-AIR-008 trial, treating patients with a single dose of ATIR101™ according to the recommendation of the Independent Data Monitoring Committee (IDMC) and according to the clinical protocol.

In this ongoing exploratory Phase II trial the safety and efficacy of a second dose of ATIR101™ is being tested in patients to investigate product flexibility in administering a further dose of ATIR101™ should it be needed by physicians. Fifteen patients have been recruited into the trial to date of which ten have received one or two doses of ATIR101™ after their haploidentical stem cell transplantation (HSCT). All ten patients received a first dose of the same efficacious level as the patients in the Company's other trials, and, as in the other trials with a single dose of ATIR101™, no patient suffered from grade III/IV Graft-versus-Host-Disease (GVHD) upon infusion of the first dose. Subsequently, six of the ten patients received a second dose of ATIR101™. Following this second infusion, some of the six patients subsequently suffered from various grades of GVHD, including grade III/IV GVHD.

After consultation with the IDMC, the IDMC recommended to proceed according to the predefined safety measure set out in the trial protocol, which is to continue with the trial, dosing patients with one dose of ATIR101™ at the efficacious level but not to provide a second dose of ATIR101™. Patient safety is paramount to the Company, hence it fully supports this recommendation and will continue to enroll and treat patients until 15 patients have received at least a single dose of ATIR101™.

In the meantime, preparations for the Company's Phase III trial with ATIR101™ (CR-AIR-009) are moving rapidly ahead, the trial having been submitted to regulatory authorities where it is currently under review for approval.

Manfred Rüdiger, PhD, Chief Executive Officer of Kiadis Pharma, commented: "*Physicians who are familiar with ATIR101™ were interested to see us explore the potential flexibility of ATIR101™ in a small second dose protocol trial and this was the reason for this specific protocol design. As also reconfirmed by the first results of this second dose trial, ATIR101™ remains safe as a single dose regimen and the treatment of patients with ATIR101™ has shown very impressive safety and efficacy results as presented at ASH only two weeks ago. As previously communicated in August this year, our randomized, controlled, international Phase III trial will be conducted with a single dose of ATIR101™ to most closely mimic the set up, dose levels and dosing schemes as previously used in the Company's CR-AIR-007 Phase II single dose*

trial, and to minimize Phase III study risks by not changing design vis-à-vis a Phase II trial. Conceptually, we still believe that a second dose of ATIR101™ might add benefit with even further improved relapse prophylaxis and infection control beyond the already demonstrated significant benefit of a single dose. Therefore, once the CR-AIR-008 trial is complete and all data have been fully evaluated, we will assess the dose level and timing of a second dose of ATIR101™ for possible future development."

About ATIR101™

For patients suffering from blood cancers, an allogeneic hematopoietic stem cell transplantation (HSCT) is generally regarded as the most effective curative approach. During an HSCT treatment, the bone marrow, harboring the diseased cancer cells, is completely destroyed and subsequently replaced by stem cells in the graft from a healthy donor. After an HSCT treatment it usually takes the patient at least six to twelve months to recover to near-normal blood cell levels and immune cell functions. During this period, the patient is highly vulnerable to infections caused by bacteria, viruses and fungi but also to disease relapse.

ATIR101™ (Allodepleted T-cell ImmunotheRapeutics) provides for a safe donor lymphocyte infusion (DLI) from a partially matched (haploidentical) family member without the risk of causing severe Graft-versus-Host-Disease (GVHD). The T-cells in ATIR101™ will help fight infections and remaining tumor cells and thereby bridge the time until the immune system has fully re-grown from stem cells in the transplanted graft.

In ATIR101™, T-cells that would cause GVHD are eliminated from the donor lymphocytes using Kiadis Pharma's photodepletion technology, minimizing the risk of GVHD and eliminating the need for prophylactic immune-suppression. At the same time, ATIR101™ contains potential cancer killing T-cells from the donor that could eliminate residual cancer cells and help prevent relapse of the disease, known as the Graft-versus-Leukemia (GVL) effect.

Therefore, ATIR101™, administered as an adjunctive immuno-therapeutic on top of HSCT, provides the patient with functional, mature immune cells from a partially matched family donor that can fight infections and tumor cells but that do not cause GVHD. ATIR101™ thus has the potential to make curative HSCT a viable option to many more patients.

The Company estimates that approximately 35% of patients who are eligible and in urgent need of HSCT will not find a matching donor in time. A partially matched (haploidentical) family donor, however, will be available to over 95% of patients.

ATIR101™, consisting of donor T-cells that fight infections and residual tumor cells while not eliciting severe GVHD, is designed to result in low relapse rates and low rates of death due to infections, in the absence of severe acute GVHD.

About Kiadis Pharma

Kiadis Pharma is focused on cell-based immunotherapy products for the treatment of blood cancers and inherited blood disorders. The Company's products have the potential to address the risks and limitations connected with allogeneic hematopoietic stem cell transplantation (HSCT), namely Graft-versus-Host-Disease (GVHD), cancer relapse, opportunistic infections and limited matched donor availability. The Company believes that HSCT could become a first-

choice treatment for blood cancers, inherited blood disorders and possibly autoimmune diseases and solid organ transplantations.

On December 5, 2016 at the Annual Meeting of the American Society of Hematology (ASH), the Company reported positive Phase II results with its lead product ATIR101™ in patients with blood cancer. The data showed that ATIR101™ significantly reduced Transplant Related Mortality and significantly improved Overall Survival. In addition, ATIR101™ did not elicit grade III-IV GVHD in any patient. ATIR101™ has been granted Orphan Drug Designations both in the US and Europe. The Company's second product candidate, ATIR201™, addresses inherited blood disorders with an initial focus on thalassemia, a disease which results in destruction of red blood cells in patients. ATIR201™ Phase I/II clinical development has been initiated recently.

Kiadis Pharma, based in Amsterdam, The Netherlands, was granted an Advanced Therapy Medicinal Product (ATMP) certificate for manufacturing quality and non-clinical data by the European Medicines Agency (EMA). The Company's shares are listed on Euronext Amsterdam and Euronext Brussels. For more information visit www.kiadis.com

Company Contact:
Manfred Rüdiger, CEO
Kiadis Pharma
Entrada 231-234
1114 AA Amsterdam-Duivendrecht
The Netherlands
Tel. +31 20 314 02 50
communication@kiadis.com

International Media and Investor Contact:
Mary-Jane Elliott, Lindsey Neville, Hendrik Thys
Consilium Strategic Communications
Tel: +44 (0) 203 709 5708
kiadis@consilium-comms.com

Forward Looking Statements

Certain statements, beliefs and opinions in this press release are forward-looking, which reflect Kiadis Pharma's or, as appropriate, Kiadis Pharma's directors' current expectations and projections about future events. By their nature, forward-looking statements involve a number of risks, uncertainties and assumptions that could cause actual results or events to differ materially from those expressed or implied by the forward-looking statements. These risks, uncertainties and assumptions could adversely affect the outcome and financial effects of the plans and events described herein. A multitude of factors including, but not limited to, changes in demand, competition and technology, can cause actual events, performance or results to differ significantly from any anticipated development. Forward looking statements contained in this press release regarding past trends or activities should not be taken as a representation that such trends or activities will continue in the future. As a result, Kiadis Pharma expressly disclaims any obligation or undertaking to release any update or revisions to any forward-looking statements in this press release as a result of any change in expectations or any change in events, conditions, assumptions or circumstances on which these forward-looking statements are based. Neither Kiadis Pharma nor its advisers or representatives nor any of its subsidiary undertakings or any such person's officers or

employees guarantees that the assumptions underlying such forward-looking statements are free from errors nor does either accept any responsibility for the future accuracy of the forward-looking statements contained in this press release or the actual occurrence of the forecasted developments. You should not place undue reliance on forward-looking statements, which speak only as of the date of this press release.