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INITIATION OF A PHASE II CLINICAL TRIAL WITH ANTI-KIR MONOCLONAL ANTIBODY IPH 2101 IN SMOLDERING MYELOMA PATIENTS

Marseilles, France, November 23, 2010

Innate Pharma (the "Company" - Euronext Paris: FR0010331421 - IPH) announces today that it has started patient inclusion in a new multicenter Phase II clinical trial with IPH 2101, an anti-KIR monoclonal antibody potentiating the anti-tumor activity of NK cells. In this trial, IPH 2101 is tested as a single agent in patients with smoldering myeloma, an early state of the blood malignancy multiple myeloma. The trial is conducted in the United States at multiple major hospitals (IPH2101-203 or "KIRMONO" trial).

"This is an important study for IPH 2101 as it will test the drug candidate in patients with early disease and a limited tumor burden - a favorable setting for immunotherapy. Furthermore, this is the first trial to be initiated and sponsored by Innate Pharma in the USA. We are delighted to have the support of leading clinical groups such as the Dana Farber Cancer Institute ("DFCI") in Boston", said Marcel Rozencweig, MD, Innate Pharma's Executive Vice President and Chief Medical Officer.

Nikhil C. Munshi, MD, a DFCI investigator and Associate Professor of Medicine at Harvard Medical School, added: "We are very interested in testing IPH 2101 in this patient population: the anti-tumor effect of NK cells seems to play an important role in the control of plasma cell proliferation and might be easily enhanced by IPH 2101. Furthermore, IPH 2101 has been very well tolerated so far. This is a key feature for patients with asymptomatic disease for whom there is no established standard of care".

About the Phase II trial testing IPH 2101 in Smoldering Myeloma (IPH 2101-203 or "KIRMONO"):

IPH 2101-203 is a multicenter, open-label Phase II clinical trial designed to evaluate IPH 2101 as a single agent in patients with previously untreated smoldering myeloma.

The rationale of this trial is based on the capacity of activated NK cells to directly kill tumor cells and trigger a broad immune activation. This rationale is further strengthened by clinical studies showing that activated NK cells can very significantly lower the recurrence of various hematological malignancies, including multiple myeloma, following bone marrow transplantation*.

The trial's primary efficacy endpoint is the response rate, based mainly on the decrease in blood and urine levels of M-protein, a surrogate marker of the disease. Other endpoints include safety and pharmacodynamics.

The protocol calls for inclusion of 30 patients, divided into 2 groups receiving IPH 2101 for 6 cycles. Responding patients will receive 6 additional cycles.

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^{*} See the "About IPH 2101" section



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About Smoldering Myeloma:

Multiple myeloma ("MM") is the second most common hematological malignancy, with over 20,000 new cases diagnosed every year in the United States and a similar incidence in Europe (Jemal et al., 2009). It is characterized by a malignant proliferation of abnormal plasma cells which populate the marrow-containing bones of the body. This translates into the overproduction of a monoclonal antibody (known as M-protein) which can be detected in the blood and used as a marker for the diagnosis and the follow-up of the disease.

Smoldering myeloma is an asymptomatic precursor state of MM. On average, patients with smoldering myeloma have an annual 10% risk of progressing to MM (Waxman AJ et al. Clin Lymphoma Myeloma Leuk. 2010;10(4):248-57). At present, it has been estimated that smoldering myeloma accounts for approximately 15% of all newly diagnosed MM patients (Dimopoulos MA et al Blood 2000; 96:2037-44). Because it is asymptomatic and not treated today, smoldering myeloma is likely to be significantly under-diagnosed. It is reasonable to conjecture that the actual incidence for smoldering myeloma should be equal or higher than the one of MM, as nearly all MM appear to derive from asymptomatic plasma cell proliferation (Landgren O. et al Blood 2009; 113: 5412-7 and Weiss BM et al Blood 2009; 113: 5418-22).

About IPH 2101:

IPH 2101 is a fully human anti-KIR monoclonal antibody which potentiates NK cells' anti-cancer activity by blocking inhibitory NK cell receptors.

This therapeutic approach to cancer has been indirectly validated by the work of Professor Andrea Velardi's research group at the University of Perugia in Italy (first published in 2002 and regularly updated since then). The work shows that following bone marrow transplantation from healthy donors in patients suffering from myeloid leukemia, grafted NK cells lacking functional KIR (inhibitory) receptors demonstrate high anti-tumoral activity - resulting in significantly higher patient survival rates. Another group published in 2005 similar results in patients transplanted with healthy donor hematopoietic cells for treatment of multiple myeloma. By blocking KIR receptors on NK cells, IPH 2101 aims at mimicking this situation (for more details, see the "IPH 2101" section at www.innate-pharma.com).

IPH 2101 has been tested in more than 50 patients so far. In these patient populations, IPH 2101 has been very well tolerated and met the pharmacodynamic objective of receptor saturation.

About natural killer (NK) cells:

Natural killer (NK) cells are a type of white blood cell from the lymphocyte family, which also includes T cells and B cells.

These NK cells are present in large numbers in the bloodstream (accounting for up to 10% of circulating lymphocytes) and form part of the so-called innate immune system - the body's first line of defense against pathogens.

Natural killer cells are controlled by stimulatory and inhibitory signals received by surface receptors and can kill both malignant and virally-infected cells. They also play a key role in the control of inflammatory reactions and in the triggering and regulation of long-term adaptive immune responses.



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About Innate Pharma:

Innate Pharma S.A. is a biopharmaceutical company developing first-in-class immunotherapy drugs for cancer and inflammatory diseases.

The Company specializes in the development of new monoclonal antibodies targeting receptors and pathways controlling the activation of innate immunity cells. It has two proprietary clinical-stage drug candidates: IPH 1101, a small molecule agonist of gamma delta T cells, has achieved proof-of-concept in two Phase IIa trials, in type C viral hepatitis and follicular lymphoma. IPH 2101, an anti-KIR monoclonal antibody potentiating NK cells activation, is currently in Phase II clinical trials in hematologic cancers. Innate Pharma is also developing a preclinical portfolio of immunomodulatory or cytotoxic monoclonal antibodies. Two of its preclinical programs in chronic inflammation have been out-licensed to Novo Nordisk A/S.

Innate Pharma's key expertise is in immunopharmacology and antibody technology. The Company has implemented in-house a large panel of molecular and cellular assays and in vivo models for assessing the pharmacodynamics and pharmacotoxicology of drug candidates. In addition, Innate Pharma has access to a very large set of unique research tools in cellular immunology through its worldwide network of scientific collaborations.

Incorporated in 1999 and listed on NYSE-Euronext in Paris in 2006, Innate Pharma is based in Marseilles, France, and had 84 employees as at September 30, 2010.

Learn more about Innate Pharma at www.innate-pharma.com.

Practical Information about Innate Pharma shares:

ISIN code FR0010331421 Ticker code IPH

Disclaimer:

This press release contains certain forward-looking statements. Although the company believes its expectations are based on reasonable assumptions, these forward-looking statements are subject to numerous risks and uncertainties, which could cause actual results to differ materially from those anticipated. For a discussion of risks and uncertainties which could cause the company's actual results, financial condition, performance or achievements to differ from those contained in the forward-looking statements, please refer to the Risk Factors ("Facteurs de Risque") section of the *Document de Reference* prospectus filed with the AMF, which is available on the AMF website (http://www.amf-france.org) or on Innate Pharma's website.

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For additional information, please contact:

Innate Pharma

Laure-Hélène Mercier Director, Investor Relations Phone: +33 (0)4 30 30 30 87 investors@innate-pharma.com

Alize Public Relations

Caroline Carmagnol Phone: +33 (0)1 41 22 07 31 Mobile: +33 (0)6 64 18 99 59

caroline@alizerp.com