PRESS RELEASE

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ASH 2014: LIRILUMAB ENHANCES ELOTUZUMAB ACTIVITY IN PRECLINICAL MODELS

- ***Two posters presented by Bristol-Myers Squibb and Innate Pharma***

Marseille, France, December 9, 2014

Innate Pharma SA (the "Company" - Euronext Paris: FR0010331421 – IPH), the innate immunity company developing first-in-class therapeutic antibodies for cancer and inflammatory diseases, announces today that new preclinical data on lirilumab, a first-in-class KIR checkpoint inhibitor, in combination with elotuzumab were presented today at the 56th ASH Annual Meeting in San Francisco, CA.
Elotuzumab is an antibody targeting CS1 (signaling lymphocyte activation molecule family member 7, or SLAMF7), a glycoprotein expressed on the surface of multiple myeloma (MM) tumor cells. Elotuzumab can recruit and trigger natural killer (NK) cells to kill MM tumor cells, through a process called antibody-dependent cellular cytotoxicity (ADCC). This ADCC process is negatively regulated by KIR inhibitory receptors on NK cells. Thus, combination treatment with lirilumab, an anti-KIR antibody, and elotuzumab has strong scientific rationale. The two posters presented show that lirilumab enhances elotuzumab activity *in vitro* and in *vivo* and support the rationale for the ongoing Phase I clinical trial combining these agents in MM.

- **"*Lirilumab Enhances Anti-Tumor Efficacy of Elotuzumab*".**

  In an *in vitro* model of two MM cell lines, activation of peripheral blood NK cells from healthy donors was significantly enhanced, in a dose-dependent manner, by both lirilumab and elotuzumab independently and further enhanced by the combination of both antibodies. The best combinatorial effect was observed in response to MM cells expressing low densities of CS1. These data suggest that lirilumab treatment may increase the therapeutic efficacy of elotuzumab.

  In double-transgenic mice engrafted with human MM tumor cells and treated when high tumor volumes were reached, combination treatment with lirilumab and elotuzumab resulted in a significantly stronger anti-tumor effect and increased survival of the mice, when compared to either antibody treatment alone.

  In conclusion, blockade of KIR with lirilumab was able to augment elotuzumab mediated ADCC *in vitro* and synergized with elotuzumab to mediate potent anti-MM activity *in vivo*.

- **"Effects of IL-21, KIR Blockade, and CD137 Agonism on the Non-Clinical Activity of Elotuzumab".**

  IL-21[1], agonist CD137 mAb and lirilumab were examined for their ability to augment elotuzumab activity *in vitro* and *in vivo* mouse models. Although IL-21 was able to increase elotuzumab mediated ADCC *in vitro* it showed little or no enhancement of elotuzumab activity in a xenograft tumor model. CD137 agonism showed minimal enhancement of elotuzumab ADCC *in vitro* but was able to synergize with elotuzumab *in vivo* to mediate potent anti-tumor activity in a xenograft tumor model. Blocking the inhibitory KIR pathway with lirilumab was able to augment elotuzumab mediated ADCC *in vitro* and synergized with elotuzumab *in vivo*, mediating potent anti-tumor activity in a KIR2DL3 transgenic and RAG deficient mouse model.

[1] A cytokine that stimulates both the innate and adaptive arms of the immune system.

Posters are available on the Company's website (www.innate-pharma.com) in the section "Products in development".

About lirilumab (IPH2102/BMS-986015):

Lirilumab is a fully human monoclonal antibody (mAb) that blocks the interaction between Killer-cell immunoglobulin-like receptors (KIR) on NK cells and their ligands. Blocking these receptors facilitates activation of NK cells and destruction of tumor cells.

Lirilumab is licensed to Bristol-Myers Squibb Company. As part of the agreement between Innate Pharma and Bristol-Myers Squibb, Bristol-Myers Squibb holds exclusive worldwide rights to develop, manufacture and commercialize lirilumab and related compounds blocking KIR receptors, for all indications. Under the agreement, Innate Pharma conducts the development of lirilumab through Phase II in AML.

In addition to the EffiKIR trial, where lirilumab is currently being tested in a randomized, double-blind, placebo-controlled Phase II trial in elderly patients as a single-agent in AML, lirilumab is also being evaluated by Bristol-Myers Squibb in clinical trials in combination with other immuno-oncology agents in a variety of tumor types.

About Innate Pharma:

Innate Pharma S.A. is a biopharmaceutical company discovering and developing first-in-class therapeutic antibodies for the treatment of cancer and inflammatory diseases.

Its innovative approach has translated into major alliances with leaders in the biopharmaceutical industry such as Bristol-Myers Squibb and Novo Nordisk A/S.

The Company has two clinical-stage programs in immuno-oncology, a new therapeutic field that is changing cancer treatment by enhancing the capability of the body's own immune cells to recognize and kill cancer cells. Innate Pharma science also has potential in chronic inflammatory diseases.

Listed on Euronext-Paris, Innate Pharma is based in Marseille, France, and had 97 employees as at September 30, 2014.

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

Practical Information about Innate Pharma shares:

ISIN code	FR0010331421
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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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