PRESS RELEASE

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INNATE PHARMA HIGHLIGHTS NEXT GENERATION OF CANCER IMMUNOTHERAPIES AT THE AMERICAN ASSOCIATION OF CANCER RESEARCH (AACR) 2019 ANNUAL MEETING

- ***New preclinical data highlights IPH5201 (anti-CD39) and IHP5301 (anti-CD73) neutralizing antibodies targeting the immunosuppressive adenosine pathway***
- ***First data presented from Innate Pharma's proprietary multi-specific NK-cell engager (NKCE) technology for fighting cancers***
- ***Conference session chaired by Chief Scientific Officer Eric Vivier at AACR 2019***

Marseille, France, April 1, 2019, 07:00 AM CET

Innate Pharma SA (the "Company" - Euronext Paris: FR0010331421 – IPH) today announced that new preclinical data from the Company's innovative portfolio of next generation immunotherapies has been presented in a conference session by Pr. Eric Vivier, Chief Scientific Officer, at the American Association for Cancer Research (AACR) Annual Meeting held from March 29–April 3, in Atlanta.

Eric Vivier, Chief Scientific Officer of Innate Pharma, said*: "Innate Pharma has always been driven by scientific leadership and we are very proud to present new preclinical data from our broad and innovative portfolio of next generation cancer immunotherapies. For the first time, we also shared data from our multi-specific NK-cell engager technology that highlight a new generation of molecules for fighting cancers."*

While chairing the conference session "Innate Immunity and Complement in Solid Tumors", the following findings were presented by Eric Vivier in a lecture titled "Targeting innate immunity in next generation cancer immunotherapies" yesterday at AACR:

IPH5201 (anti-CD39) and IPH5301 (anti-CD73), targeting the adenosine pathway:

CD39 and CD73 are membrane-bound extracellular enzymes which play a major role in promoting immunosuppression through the pathway degrading adenosine triphosphate (ATP) into immunosuppressive adenosine (Ado). The blockade of CD39 and CD73 has the potential to promote anti-tumor immune responses across a wide range of tumors.

New data demonstrate that a combination of Innate Pharma's anti-CD39 monoclonal antibody, IPH5201, and ATP-inducing oxaliplatin had a synergistic effect that improved the control of tumor growth in a preclinical mouse model.

Previous findings showed that IPH5201 enhances the stimulatory effect of ATP on antigen presenting cells and abrogates the suppressive effect of ATP-derived Ado on the proliferation of T cells from healthy donors and cancer patients. In October 2018, Innate Pharma and AstraZeneca entered into a development collaboration and option for further co-development and co-commercialization for IPH5201.

New data from a crystal structure of the CD73/IPH5301 complex support a model for the differentiated mode of action of IPH5301 and enhanced efficacy compared to competitors. Analysis by electron microscopy revealed that the IPH5301 monoclonal antibody interacts mainly with CD73 dimer in an intra-dimer mode, constraining the CD73 enzyme in an inactive

state in which AMP could not be hydrolyzed, in contrast to other antibodies in development that interact in an inter-dimer mode. Findings presented at the 2018 American Association of Cancer Research (AACR) conference demonstrated that IPH5301 is more potent *in vitro* than benchmark anti-CD73 antibodies currently under clinical development, on both membrane-bound and soluble CD73, in enzymatic activity as well as T cell proliferation assays.

Innate expects INDs to be filed for IPH5201 in the second half of 2019 and for IPH5301 in the first half of 2020.

First-in-class trifunctional NKCEs create a new generation of molecules for fighting cancer:

Innate Pharma's proprietary multifunctional NKCE technology targets two activating receptors, NKp46 and CD16, on NK cells and a tumor antigen on cancer cells.

New pre-clinical data outlined in the presentation demonstrate that these first-in-class trifunctional NKCEs are more potent *in vitro* and *in vivo* than clinical therapeutic monoclonal antibodies targeting the same tumor antigen, such as rituximab, obinituzumab or cetuximab, with no off-target effects. The data also demonstrate that co-engagement of NKp46 synergizes with CD16 to potentiate both tumor cell lysis and NK cell activation.

NKCEs stimulate NK cells instead of T cells and have been designed to improve the benefit-risk profile for the treatment of solid tumors.

Innate Pharma has a research collaboration and licensing agreement with Sanofi for the generation and evaluation of up to two multifunctional NK cell engagers, using both Innate Pharma's and Sanofi's technology and tumor targets. Under the terms of the license agreement, Sanofi is responsible for the development, manufacturing and commercialization of products resulting from the research collaboration. Innate Pharma is eligible for up to €400m in development and commercial milestone payments as well as royalties on net sales.

The presentation is available on Innate Pharma's website.

About Innate Pharma:

Innate Pharma S.A. is a fully integrated oncology-focused biotech company dedicated to improving treatment and clinical outcomes for patients through therapeutic antibodies that harness the immune system to fight cancer.

Innate Pharma's commercial-stage product, Lumoxiti, in-licensed from AstraZeneca, was approved by the FDA in September 2018. Lumoxiti is a first-in class specialty oncology product for hairy cell leukemia (HCL). Innate Pharma's broad pipeline of antibodies includes several first-in-class clinical and preclinical candidates in cancers with high unmet medical need.

Innate Pharma has pioneered the discovery and development of checkpoint inhibitors, with a unique expertise and understanding of Natural Killer cell biology. This innovative approach has resulted in major alliances with leaders in the biopharmaceutical industry including Bristol-Myers Squibb, Novo Nordisk A/S, Sanofi, and a landmark and multi-products partnership with AstraZeneca.

Based in Marseille, France, Innate Pharma is listed on Euronext Paris.

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

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Information about Innate Pharma shares:

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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.

This press release and the information contained herein do not constitute an offer to sell or a solicitation of an offer to buy or subscribe to shares in Innate Pharma in any country.

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