# PRESS RELEASE

innate pharma

## INNATE PHARMA ANNOUNCES PUBLICATION OF MONALIZUMAB RESEARCH IN THE PRESTIGIOUS "CELL" JOURNAL WIDENING THE HORIZON OF IMMUNE CHECKPOINT INHIBITORS

- ***Monalizumab is a first-in-class broad-spectrum immune checkpoint inhibitor with a dual effect on both Natural Killer (NK) cells and T lymphocytes***
- ***Monalizumab showed promising preclinical and clinical results in combination with durvalumab, another immune checkpoint inhibitor, and also in combination with cetuximab, a targeted therapy that notably enhances action of NK cells***

**Marseille, France, November 30, 2018, 07:00 AM CET**

Innate Pharma SA (the "Company" - Euronext Paris: FR0010331421 – IPH) today announced the publication of data demonstrating the potential of monalizumab, an anti-NKG2A antibody, which could extend cancer immunotherapies to NK cell-based treatments. Published in the prestigious journal *Cell* on November 29, 2018, this work, led by Professor Eric Vivier and the Innate Pharma teams in collaboration with MedImmune, the global biologics research and development arm of AstraZeneca and renowned researchers and clinicians, will now be used as a reference for later development of monalizumab.

*"With a dual effect on T cells and NK cells, monalizumab pioneers a new class of broad-spectrum immune checkpoint inhibitors,"* **said Eric Vivier, Chief Scientific Officer of Innate Pharma, Professor at Aix-Marseille University and lead author of this publication.** *"We hope monalizumab will soon offer a new therapeutic option to a diverse group of cancer patients based on the simultaneous blockade of two complementary inhibitory signals or the combination of inhibitory signal blockade with the delivery of an activating signal."*

Immune checkpoint inhibitors, in particular anti-PD-1/L1, have revolutionized cancer treatment over the past decade, providing long-lasting benefits. However, only a subset of patients respond favorably to PD-1/L1 blockade. The main current challenge of immuno-oncology is to overcome anti-PD-1/L1 resistance by targeting new immune checkpoints and cells and mastering therapeutic combinations.

*"To deliver on the long-term potential of immunotherapy, we must find ways to augment anti-PD-1/L1 therapy to improve response rates in patients who have not responded to immune checkpoint therapies alone. We are encouraged to see these data provide a strong rationale for combinations with other immunotherapy antibodies, in particular our PD-L1 blocking antibody durvalumab,"* **added Ronald Herbst, VP Oncology Research at MedImmune.** *"We are continuing to explore the potential of monalizumab in combination with durvalumab in our ongoing phase II clinical trial, and hope to identify new ways of expanding the benefits of immunotherapy for patients with advanced solid tumors."*

This publication reports that monalizumab stimulates simultaneously the anti-tumor activity of NK cells and T cells by blocking the inhibitory receptor NKG2A. NKG2A is present at the surface of both cells within the tumor bed while its ligand, HLA-E, is frequently overexpressed in human tumors, thus opening a wide therapeutic window for monalizumab.

Importantly, the authors demonstrate that combination of their NKG2A blocking antibody with a PD-L1 blocking antibody provides an additive effect towards the activation of an anti-tumor immunity both in vitro and in tumor-bearing mice, setting the grounds for the use of monalizumab in combination immunotherapy and supporting the ongoing clinical trial evaluating monalizumab in combination with durvalumab in MSS-CRC* for which data were presented at the 2018 ASCO Annual Meeting. Another phase II clinical trial using monalizumab in combination with cetuximab (an antibody that blocks the EGFR† on tumor cells and induces ADCC by NK cells) in patients with head and neck cancer (SCCHN‡), demonstrate that the monalizumab cetuximab combination is well tolerated and provides encouraging efficacy results. Results from this phase II trial were presented at the 2018 ESMO and SITC Annual Meetings.

### About monalizumab:

Monalizumab is a first-in-class immune checkpoint inhibitor targeting NKG2A receptors expressed on tumor infiltrating cytotoxic CD8 T lymphocytes and NK cells.

NKG2A is an inhibitory checkpoint receptor for HLA-E. By expressing HLA-E, cancer cells can protect themselves from killing by NKG2A+ immune cells. HLA-E is frequently up-regulated on cancer cells of many solid tumors and hematological malignancies. Hence, monalizumab may re-establish a broad anti-tumor response mediated by NK and T cells. Monalizumab may also enhance the cytotoxic potential of other therapeutic antibodies.

AstraZeneca and MedImmune, AstraZeneca's global biologics research and development arm, obtained full oncology rights to monalizumab in October 2018 through a co-development and commercialization agreement initiated in 2015. The companies currently share Phase II development for monalizumab in a broad exploratory clinical program focused on investigating monalizumab in combination strategies.

### About Innate Pharma:

Innate Pharma S.A. is a fully integrated oncology-focused biopharmaceutical 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/MedImmune.

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

---

* Microsatellite-stable colorectal cancer
† Epidermal Growth Factor Receptor
‡ Squamous Cell Carcinoma of the Head and Neck

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

## Information about Innate Pharma shares:

| | |
|---|---|
| **ISIN code** | FR0010331421 |
| **Ticker code** | IPH |
| **LEI** | 9695002Y8420ZB8HJE29 |

## 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.

## For additional information, please contact:

**Investors**

**Innate Pharma**

Dr. Markus Metzger / Danielle Spangler / Jérôme Marino

Tel.: +33 (0)4 30 30 30 30

investors@innate-pharma.com

**International Media**

**Consilium Strategic Communications**

Mary-Jane Elliott / Jessica Hodgson

Tel.: +44 (0)20 3709 5700

InnatePharma@consilium-comms.com

**French Media**

**ATCG Press**

Marie Puvieux

Mob: +33 (0)6 10 54 36 72

presse@atcg-partners.com