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## Physiomics plc ("Physiomics" or the "Company")

## Publication of Peer Reviewed Article

Physiomics plc (AIM: PYC), a leading mathematical modelling, data science and biostatistics company supporting the development of new therapeutics and personalised medicine solutions, is pleased to announce the joint online publication with Astellas Pharma Inc. ("Astellas") of an original peer reviewed article "A Multiple-Model-Informed Drug-Development Approach for Optimal Regimen Selection of an Oncolytic Virus in Combination with Pembrolizumab" in the journal "CPT: Pharmacometrics & Systems Pharmacology". The full article can be accessed via the following link: <a href="https://ascpt.onlinelibrary.wiley.com/doi/epdf/10.1002/psp4.13297">https://ascpt.onlinelibrary.wiley.com/doi/epdf/10.1002/psp4.13297</a>

With cancer being one of the leading causes of death worldwide, the development of new therapies is critical. One of the most promising class of oncology therapy is immunotherapy, an approach that can turn the power of the immune system against cancer cells. These drugs are either used on their own, or in combination with other therapies, in order to maximise patient outcomes.

When developing these types of therapies, one of the major challenges is around optimising dose and timing (i.e. treatment scheduling) of the treatment so to balance out any toxic effect the drug has against the drug's efficacy; its ability to reduce or eliminate the cancer. This balance becomes even more complicated when multiple drugs are being used in combination.

Physiomics adds value to these these processes by offering drug development companies prediction and optimisation services through its modelling and simulation capabilities, helping to predict what treatment dose schedule to explore when progressing from predinical research and into the clinical for the first time; balancing out toxicity with efficacy. These predictions help our clients focus on the most effective experimental permutations to explore, thus accelerating and derisking the drug development process.

**Dr Peter Sargent, CEO, commented:** "We are delighted to be able to announce this peer-reviewed publication. Not only does this paper reflect the high-quality consultancy services we provided Astellas and the good relationship we built with them, but it also evidences the power and utility of our Virtual Tumour Platform in helping to develop these novel therapies".

In this publication, Physiomics' proprietary 'Virtual Tumour' platform was deployed using a multiple model-informed drug-development ("MIDD") approach framework to explore different dose and scheduling strategies. The output of these models helped describe the expected synergy of a immunotherapy combination for the purpose of Phase-1 clinical study design.

This joint publication between Physiomics and Astellas demonstrates the impact of using modelling and simulation approaches to accelerate the development of innovative therapies across a range of therapeutic areas and throughout the entire drug development pathway, including early discovery and clinical development. The peer-reviewed article also demonstrates the power of Physiomics' Virtual Tumour platform in supporting world-leading pharmaceutical companies develop these important new therapies.

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Notes to Editor

## **About Physiomics**

Physiomics plc combines expertise across Modelling & Simulation, Biostatistics, Data Science and Bioinformatics, together with deep biology expertise, to help biotech and pharma companies streamline their drug development journeys. Our approach is to help derive insight from all relevant and often disparate data in order to de-risk decision making and optimise research design across discovery, pre-clinical and clinical studies. Through use of cutting-edge computational tools, bespoke models and our proprietary Virtual Tumour technology, the Physiomics team has informed the development of over 100 commercial projects, with over 125 targets and drugs modelled. Clients include Merck KGaA, Astellas, Bicycle Therapeutics, Numab Therapeutics & CRUK.

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