

rational therapeutics

Physiomics plc

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("Physiomics") or ("the Company")

Physiomics to give an oral presentation on developments of the Virtual Tumour platform in drug resistance at the Seventh American Conference on Pharmacometrics ("ACoP7")

Physiomics plc (AIM: PYC), the Oxford, UK based systems biology Company, is pleased to announce that it is participating in the ACoP7 Meeting 2017, taking place at the Hyatt Regency Bellevue, Washington on 24-26 October 2016. Dr David Orrell, Principal Consultant, will present on the application of the Virtual Tumour ("VT") platform to predict the emergence of resistance.

Drug resistance is a major cause of treatment failure in cancer, and understanding and overcoming mechanisms of resistance is a key challenge in advancing cancer therapy. Given the significance of cancer drug resistance, and the form that future cancer therapy is likely to take, Physiomics is actively engaged in developing personalised medicine solutions.

As a first step, we have incorporated chemotherapeutic resistance into our Virtual Tumour platform. This VT extension captures the fundamental mechanism by which resistance arises.

Through a case study, we have demonstrated that the extended VT can be applied to model the emergence of resistance in patient-derived xenografts. Furthermore, we show that the VT can be used to identify and optimise therapeutic strategies for delaying the emergence of drug resistance. Such a tool could help at the patient level to improve a key clinical metric, the "time to relapse", i.e. how long it takes for a patient to become resistant to a given treatment.

David Orrell is an applied mathematician, with a PhD from Oxford University on the prediction of nonlinear systems. He has worked in diverse areas including weather forecasting, economics, and systems biology, and at Physiomics is working on model development. He has written over 20 research papers, and is the author of several books including "The Future of Everything: The Science of Prediction".

The abstract ("Modelling the Emergence of Resistance to Chemotherapeutics with Virtual Tumour", No W-24) will be presented in the Poster Session #3, scheduled 7:30 AM-9:30 AM, 26 October 2016.

More information about the conference may be found at: http://www.acop7.org/home

Dr Christophe Chassagnole, COO of Physiomics, commented:

"We are pleased to present for the first time at the American Conference on Pharmacometrics, which is the main US conference for PK/PD modelling. The company will be represented by David Orrell, the inventor of the Virtual Tumour technology. The ability to reduce the appearance of drug resistance via optimised scheduling could potentially play an important role in increasing patient survival."

Enquiries:

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About Physiomics plc

Physiomics (AIM:PYC) is a computational systems biology services company applying simulations of cell behaviour to drug development to reduce the high attrition rates of clinical trials. 80-90 per cent of all clinical drug candidates fail to reach the market and estimates show that an overall ten per cent improvement in success rates could reduce the cost of one drug's development by as much as \$242 million, from the current estimate of around \$800 million¹.

Physiomics develops computational systems biology models to predict and understand cancer drug efficacy from pre-clinical research to clinical development. Physiomics has created detailed mathematical models incorporating the most important molecular events taking place during the human cell cycle and apoptosis processes. The company's SystemCell® technology enables the simulation of populations of "virtual cells". The company has also developed a "Virtual Tumour" model to simulate the effect of anti-cancer drugs on tumour growth. The models are used to optimise compound design and to design drug schedules and combination therapies.

Physiomics, based in Oxford, UK, was founded in 2001, and floated on AIM in 2004. For further information, please visit <u>www.physiomics-plc.com</u>

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