

rational therapeutics

Physiomics plc

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

Physiomics to give an oral presentation on new developments of the Virtual Tumour platform in drug resistance at Annual Meeting for American Association for Cancer Research ("AACR")

Physiomics plc (AIM: PYC), the Oxford, UK based systems biology company, is pleased to announce that it is participating in the AACR Annual Meeting 2016, taking place at the Ernest N. Morial Convention Center, New Orleans, Louisiana on 16-20 April 2016. Dr Eric Fernandez 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 personalized 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 demonstrate 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 optimize therapeutic strategies for delaying the emergence of drug resistance. Such 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.

The abstract ("Modeling the emergence of resistance to chemotherapeutics with virtual tumor ", No 852) will be presented in the "Novel and Integrative Analyses of Cancer Genome Data", Minisymposium session, scheduled 4:15 PM-6:15 PM, 17 April 2016.

More information about the conference may be found at: http://www.aacr.org/Meetings/Pages/MeetingDetail.aspx?EventItemID=63&DetailItemID=36 3#.VvqCVMLrucx



Dr Christophe Chassagnole, COO of Physiomics, commented:

"Our enhanced Virtual Tumour capability represents the first step towards a groundbreaking tool for developing personalized treatment, which is set to revolutionize cancer therapy in the near future, especially for patients with resistant disease."

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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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