



PRESS RELEASE

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Experimental online tool launched to guide HIV treatment decisions without the need for resistance testing

Data presented today at IAS 2011 demonstrate potential utility for resource-limited settings

Rome, Italy; Monday 18th July 2011. A new free online service with the potential to help HIV treatment in countries with limited healthcare resources was launched today. The system accurately predicts how patients will respond to different combinations of drugs without the need for expensive tests to read the viral genetic code. Data presented today at the 6th IAS Conference on HIV Pathogenesis, Treatment and Prevention (IAS 2011) demonstrated the accuracy of the system for patients in Romania and South Africa whose treatment was failing (abstract MOPE146).

The system, a new version of the 'HIV-TRePS' service, was specifically developed by the HIV Resistance Response Database Initiative (RDI) to help guide treatment decisions in resource-limited settings where relatively expensive genotype resistance tests are not routinely performed. It harnesses the power of computer models developed over several years using data from tens of thousands of patients to predict how an individual with HIV infection will respond to all the available HIV drug combinations.

"I am delighted to see this service launched today", commented Dr. Julio Montaner, Past President of the International AIDS Society and Director of the BC Centre for Excellence in HIV & AIDS, based in Vancouver, Canada. "I have always been convinced that the RDI's system could be of major value in settings where resources are constrained or experience is limited. This really has the potential to make a difference".

The new system uses a set of computational models called random forests to make predictions from over 40 different pieces of data collected from approximately 16,000 patients in more than 20



countries. During training the models performed with an accuracy of approximately 75%. Results presented today at IAS 2011 showed the models to be 68-69% accurate with cases from Romania and South Africa, where HIV/AIDS is a major challenge and limited resources do not usually allow for genotyping.

Use of the system could help physicians avoid drug combinations that are less likely to work. Recent clinical studies suggest that they also have the potential to help preserve treatment options and resources by helping to maintain control of the virus without the need to resort to newer and more expensive drugs.

The RDI launched the original version of its HIV Treatment Response Prediction System (HIV-TRePS) in October 2010. That version requires the results of a genotype test, which highlights the mutations in the viral genetic code that can cause resistance to drugs. The new version, that does not require a genotype, performs with only a few percentage points less accuracy, despite the absence of this information. The original version is in use by more than 350 health care professionals in 55 countries.

"We are extremely pleased to launch this innovative approach to predicting treatment response without the need for a resistance test", commented Dr Brendan Larder, Scientific Chair of the RDI. "With the expansion of HIV treatment worldwide, we hope this will prove to be a very useful tool and we encourage people to try it out. We would also encourage treating physicians in countries that do not routinely run resistance tests to send us their data so we can use them to make future system refinements and updates."

The RDI is an independent, not-for-profit international research collaboration set-up in 2002 with the mission to improve the clinical management of HIV infection through the application of bioinformatics to HIV drug resistance and treatment outcome data. Over the nine years since its inception, the RDI has worked with many of the leading clinicians and scientists in the world to develop the world's largest database of HIV drug resistance and treatment outcome data, containing information from approximately 70,000 patients in more than 20 countries.

Note: HIV-TRePS is an experimental system intended for research use only. The predictions of the system are not intended to replace professional medical care and attention by a qualified medical practitioner and consequently the RDI does not accept any responsibility for the selection of drugs,



the patient's response to treatment or differences between the predictions and patients' responses.

More information can be found at: www.hivr.org.

For further information contact:

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The following personnel are available for interview on request, through Andrew Revell above:

Dr Julio Montaner: Past President of the International AIDS Society and Director of the BC-Centre for Excellence in HIV & AIDS, based in Vancouver, Canada (time difference –8 hours)

Dr Brendan Larder: Scientific Chairman of the RDI, Cambridge, UK

Dr Andrew Revell: Executive Director, RDI, London, UK

The RDI's International Advisory Group

- Dr Julio Montaner (BC Centre For Excellence in HIV/AIDS, Vancouver, Canada)
- Dr Carlo Torti (University of Brescia, Italy)
- Dr John Baxter (Cooper University Hospital, Camden, NJ, USA)
- Dr Sean Emery (National Centre in HIV Epidemiology and Clinical Research, Sydney, Australia)
- Dr Jose Gatell (Hospital Clinic of Barcelona, Spain)
- Dr Brian Gazzard (Chelsea and Westminster Hospital, London, UK)
- Dr Anna-Maria Geretti (Royal Free Hospital, London, UK)
- Dr Richard Harrigan (BC Centre For Excellence in HIV/AIDS, Vancouver, Canada)