

LECTURE PRESENTATION

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Shortening the drug discovery pipeline: small molecule high content screening for lead discovery in neglected disease

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From Institut Pasteur International Network Annual Scientific Meeting
Hong Kong. 22-23 November 2010

There is a pressing, global need for new therapies for neglected diseases such as Tuberculosis, Leishmaniasis and Chagas. Traditional lead discovery approaches, while effective have not been widely applied to neglected diseases as they are expensive and time consuming. At Institut Pasteur Korea, we have developed a core technology that enables the high content screening of hundreds of thousands of small molecules against the disease of interest. In doing so, we utilize relevant disease models that allow us to interrogate the disease in the context of the cell and the host-pathogen factors required for invasion, replication, persistence and release. The application of this core technology against Tuberculosis, Leishmaniasis and Chagas disease has resulted in the identification of novel, active compounds in less time and at less cost than traditional drug discovery methods. As these active compounds were identified in a cellular context, they can provide a more relevant starting point for new therapies.

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Published: 10 January 2011

doi:10.1186/1753-6561-5-S1-P38

Cite this article as: Cechetto *et al.*: Shortening the drug discovery pipeline: small molecule high content screening for lead discovery in neglected disease. *BMC Proceedings* 2011 **5**(Suppl 1):P38.

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