

# Pharmacogenomics of antiretroviral therapy in Latin America

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© 2011 by Nova Science Publishers, Inc. All rights reserved. AIDS is caused by infection with human immunodeficiency virus (HIV), which when untreated produces a critical decline in CD4+ T cells, triggering a progressive dysfunction of the immune system and the development of opportunistic infections and/or malignancies leading to death. Currently, there are more than 20 anti-retrovirals (ARVs) approved for commercial use in Latin America, and a large number of new ARV studies. These are divided into 6 classes: Nucleos(t)ide analogue reverse transcriptase inhibitors (NRTIs), non-nucleoside reverse transcriptase inhibitors (NNRTIs), protease inhibitors (PI), fusion inhibitors (FIs), co-receptor antagonists (CCR5-antagonists) and integrase inhibitors (INSTI). Nevertheless, the high inter-individual variability in the response and the adverse effects of these drugs has been the main explanation for the lack of adherence to treatment. In Latin America several studies have been conducted t