



Technique for detecting HIV-1 proviral DNA by PCR: The case of newborns

Laure Stella Ghoma Linguissi^{1,2,3}, Tani Sagna^{2,3,4}, Jacques Simpore^{2,3}

¹Institut national de Recherche en Sciences de la Santé (IRSSA), Brazzaville, République du Congo

²Centre de Recherche Biomoléculaire Pietro Annigoni (CERBA)/LABIOGENE, UFR/SVT, Université de Ouagadougou, Burkina Faso

³Centre Médical Saint Camille, Ouagadougou, Burkina Faso

⁴Institut de Recherche en Sciences de la Santé (IRSS), Ouagadougou, Burkina-Faso

Email: linguissi@gmail.com

Submitted 10/02/2026, Published online on 31/05/2026 in the <https://www.m.elewa.org/journals/journal-of-applied-biosciences-about-jab/> <https://doi.org/10.35759/JABs.220.1>

INTRODUCTION

Polymerase chain reaction (PCR) testing for integrated viral DNA (proviral DNA) is the standard method used for early detection of HIV in newborns. In developing countries, this approach has been made more accessible through the dried blood spot (DBS) technique. The medical challenge is to identify infants

infected via vertical transmission of HIV so that they can receive antiretroviral (ARV) treatment early. In resource-limited countries, there are many advantages to using DBS samples rather than whole blood for PCR testing to detect DNA.