



# Detection of *M. tuberculosis* DNA in peripheral blood mononuclear cells of tuberculosis contacts does not associate with blood RNA signatures for incipient tuberculosis

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*To the Editor:*

Human exposure to *Mycobacterium tuberculosis* (Mtb) is thought to result in a spectrum of outcomes, including bacillary clearance, quiescent Mtb infection, incipient tuberculosis (TB), subclinical TB and active TB [1]. Incipient TB – defined as a prolonged asymptomatic phase of early disease preceding clinical presentation as active disease [2] – may be distinguished from quiescent Mtb infection by detection of host gene expression signatures in blood, whose presence associates with increased risk of progression to active TB [3]. We and others have previously reported detection of Mtb DNA in CD34-positive peripheral blood mononuclear cells (PBMCs) of asymptomatic TB-exposed adults with normal chest radiographs [4–6]. In one such study conducted in Ethiopia [5], administration of isoniazid preventive therapy (IPT) reduced the proportion of HIV-infected individuals in whom this signal was detectable from 95% to 53% ( $p < 0.0001$ ), suggesting that detection of Mtb DNA in PBMCs may represent the presence of viable bacteria. Whether these bacteria provoke a host transcriptional response associated with subclinical disease is not known.

