Reviewer's report

Title: Immune responses in patients with HIV infection after vaccination with recombinant Hepatitis B virus vaccine.

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Reviewer: Hubert E Blum

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The study of Pasricha et al. addresses the cellular and humoral immune responses elicited by immunization with a standard recombinant hepatitis B surface antigen (HBsAg) vaccine in HIV-infected patients. The authors demonstrate that immunization of HIV infected patients results in detectable humoral immune responses depending on the CD4+ T cell count. Furthermore, the authors addressed the role of vaccine-induced cellular immune responses for the induction of the magnitude of anti-HBs responses. Although the authors observed that immunization with recombinant HBsAg appears to result in an increase in the total numbers of CD4+ or CD8+ T cells in HIV infected patients, the interpretation of the results is severely limited by the missing analysis of virus- or HBsAg-specific cellular immune responses induced by the recombinant vaccine. Thus, the study is largely descriptive and only marginally advances our knowledge in the understanding of HBV vaccine-induced immune responses.