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BRIEF REPORT

Mucosal *Escherichia coli* Bactericidal Activity and Immune Mediators Are Associated With HIV-1 Seroconversion in Women Participating in the HPTN 035 Trial

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The mucosal environment may impact the risk for human immunodeficiency virus type 1 (HIV-1) acquisition. Immune mediators were measured in vaginal fluid collected from HPTN 035 participants who acquired HIV-1 and from those who remained HIV-1 negative (controls). Mediator concentrations were similar in samples obtained before as compared to after HIV-1 acquisition in the 8 seroconverters. Compared with controls, seroconverters were more likely to have detectable levels of HβD-2 (odds ratio [OR], 2.39; *P* = .005) and greater *Escherichia coli* bactericidal activity (OR, 1.22; *P* = .01) prior to seroconversion. *E. coli* bactericidal activity remained significant in a multivariable analysis (*P* = .02) and may be a biomarker for HIV-1 acquisition.

Clinical trials evaluating the effectiveness of topical female genital tract following coitus (eg, BufferGel) or oral preexposure prophylaxis (PrEP) to prevent polysulfated polymers that block HIV from binding to

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