

## **Co-culture of schistosomes with mammalian cells to reveal host pathogen interactions**

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While residing in bloodstream of its mammalian hosts, *Schistosoma mansoni*, parasitic blood flukes, are in close proximity to the cells lining blood vessels and, in early stage of infection, development into adults has been associated with localisation in the liver. Little is known about how the parasites interact with specific host tissues, though it is generally accepted that the parasites employ multiple strategies during infections to promote their survival and infection success. Understanding how *S. mansoni* and host tissues influence one another could provide insight for the significance of such interactions on overall infection outcome. In this study, we co-cultured mechanically transformed schistosomules with commercially available cells derived from human tissues - endothelial cells, hepatocytes, and embryonic kidney cells - and investigated transcriptional changes in both the schistosomules and the co-cultured cells. Transcriptional changes in the co-cultured parasites suggest influences of site-specific information that may trigger downstream responses in the parasites. Whereas responses in co-cultured mammalian cells demonstrate how parasites might modulate host gene expression to promote their survival. This information provides further insight into *S. mansoni* host-parasite interactions and the involvement of host cells in determining key aspects of the infection.