Gene That Helps Embryos Survive Could Fight HIV, Hep B and TB

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A newly discovered gene that is crucial for the survival of embryos may one day become a critical factor in the fight against chronic infections, including HIV, hepatitis B and tuberculosis (TB), reports the Walter and Eliza Hall Institute of Medical Research in Australia. Researchers from that institute and the University of Toronto in Canada published a paper about their discovery of a gene known as Arih2 in the journal Nature Immunology.

Found in dendritic cells, the Arih2 gene is instrumental in launching immune reactions to infections, or repressing such reactions to avoid chronic inflammation or autoimmunity. Because the gene has a unique structure, researchers theorize that it could prove a good target for a future drug that would be unlikely to affect other proteins in the body or cause side effects. When a chronic infection overwhelms the immune system, it can exhaust or paralyze CD4 cells. Scientists speculate that a drug targeting Arih2 might temporarily boost the immune response to help clear the infection.

To read the Walter and Eliza Hall Institute's news release, click here.

To read the paper in Nature Immunology, click here.