

Your genes may make you more vulnerable to flu and other viruses

Bad luck. Terrible misfortune. That's what we think when we hear about a perfectly healthy child who suddenly dies of influenza, a virus most of us can shake off. But what if it isn't luck? What if this kind of deadly infection turns out to be, well, genetic?

Crazy as that sounds, there is a growing body of research that supports the idea. Much of it has been led by Jean-Laurent Casanova, a pediatric immunologist and geneticist at the Rockefeller University.

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He hypothesized that some of us harbor genetic mutations, whether inherited or spontaneous, that make us susceptible to a particular germ, much the way certain strains of wheat are genetically vulnerable to a particular blight.

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[Casanova has] identified dozens of [single-gene mutations causing this kind of vulnerability](#). These mutations do not devastate defenses, as with severe combined immunodeficiency (SCID), once known as "bubble boy" syndrome and now treated with bone marrow transplants. Instead, Casanova explains, "these are pathogen-specific diseases caused by inborn errors of immunity that are very narrow—sometimes [involving] one virus, one bacterium."

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[T]hese surprising discoveries are creating a paradigm shift in how we think about severe infection. "This work makes the case that we should shift a little of our attention from the germ to the host, or child," says Isabelle Meyts, a pediatric immunologist.

Read full, original post: [Extreme Flu? Weird Encephalitis? It May Be Your Genes](#)